

ARCHAEOLOGICAL ASSESSMENT
AT
TINAHASK UPPER,
ARKLOW,
COUNTY WICKLOW

ON BEHALF OF: WICKLOW COUNTY COUNCIL

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ABSTRACT

This assessment has been prepared on behalf of Wicklow County Council, to study the impact, if any, on the archaeological and historical resource of a proposed residential development at Tinahask Upper, Arklow, County Wicklow (ITM 724098, 672338). It was carried out by Matt Brooks and Deanna Lee of IAC Archaeology.

The site comprises part of one large field of pasture bordered to the north by Abbeylands residential estate, to the east by a open fields, to the south by Oakwood Court residential estate / Avalon Road and to the west by the Dublin to Rosslare railway line. There are no recorded archaeological sites within the proposed development area or wider study area. The closest recorded monument comprises the Zone of Archaeological Potential for the historic core of Arklow (WI040-029) located c. 694m to the northeast of the proposed development area. No previous archaeological investigations have been carried out within or in the immediate proximity of the proposed development area.

The proposed development area is characterised by undeveloped east-facing pasture. Whilst no evidence was identified during the assessment for previously unrecorded archaeological features, it is possible that such remains survive with no surface expression. Ground disturbances, such as the provision of infrastructure and associated utility services, may have a significant negative effect on previously unrecorded archaeological features or deposits that have the potential to survive beneath the current ground level.

Given the scale and undeveloped condition of the proposed development area it is recommended that a geophysical survey and programme of test trenching be carried out across the site. Depending on the results of these surveys, it is possible that further archaeological mitigation may be required. This may include the preservation by record or *in situ* of archaeological remains, and/or archaeological monitoring. Any further mitigation will require agreement from the National Monuments Service of the Department of Housing, Local Government and Heritage.

Furthermore, the townland boundary between Tinahask Upper and Abbeylands/ Knockanrahan Lower comprises the northern boundary of the proposed development area. This boundary may be partially removed to provide access into the proposed residential estate, resulting in a mild negative impact. It is recommended that the removal of any such sections of townland boundary be subject to archaeological monitoring to record the form and investigate the antiquity of its construction.

CONTENTS

ABSTRACT.....	I
CONTENTS	II
List of Figures.....	iii
List of Plates	iii
1 INTRODUCTION	1
1.1 General	1
1.2 The Development	1
2 METHODOLOGY	2
2.1 Paper Survey.....	2
2.2 Field Inspection.....	4
3 RESULTS OF ARCHAEOLOGICAL ASSESSMENT	5
3.1 Archaeological and Historical Background	5
3.2 Summary of Previous Archaeological Fieldwork.....	10
3.3 Cartographic Analysis	10
3.4 Development Plan	11
3.5 Topographical Files of the National Museum of Ireland.....	11
3.6 Aerial Photographic Analysis	11
3.7 Field Inspection.....	12
4 CONCLUSIONS.....	13
5 IMPACT ASSESSMENT AND MITIGATION STRATEGY	14
5.1 Impact Assessment.....	14
5.2 Mitigation	14
6 REFERENCES.....	16
APPENDICES.....	I
Appendix 1 Legislation Protecting the Archaeological Resource	i
Appendix 2 Impact Assessment and the Cultural Heritage Resource	v
Appendix 3 Mitigation Measures and the Cultural Heritage Resource.....	vii

FIGURES

PLATES

LIST OF FIGURES

- Figure 1 Site Location showing nearby archaeology (Google Earth, July 2021)
- Figure 2 Plan of proposed development
- Figure 3 Extract from Nevill's map (1760) showing approximate location of proposed development area
- Figure 4 Extract from the first edition ordnance survey map (1840) showing the proposed development area
- Figure 5 Extract from the 1909 ordnance survey map showing the proposed development area

LIST OF PLATES

- Plate 1 Western portion of site, facing southwest
- Plate 2 Eastern portion of site, facing southeast
- Plate 3 Townland boundary, facing northeast
- Plate 4 Backfilled 'soak-away' pit, facing northeast

1 INTRODUCTION

1.1 GENERAL

The following report details an archaeological assessment undertaken in advance of a proposed residential development at Tinahask Upper, Arklow, County Wicklow (Figure 1; ITM 724098, 672338). This assessment has been carried out to ascertain the potential impact of the proposed development on the archaeological and historical resource that may exist within the area. It was undertaken by Matt Brooks and Deanna Lee of IAC Archaeology (IAC), on behalf of Wicklow County Council.

The archaeological assessment involved a detailed study of the archaeological and historical background of the proposed development site and the surrounding area. This included information from the Record of Monuments and Places of County Wicklow, the topographical files within the National Museum and all available cartographic and documentary sources for the area. A field inspection has also been carried out with the aim to identify any previously unrecorded features of archaeological or historical interest.

1.2 THE DEVELOPMENT

Wicklow County Council propose to construct 74 No. Housing Units and all associated works at Tinahask, Arklow, Co. Wicklow. The accommodation shall consist of the following: 8 No. one bed bungalows, 2 No. one bed apartment units, 45 No. two bed two storey housing units, 17 No. three bed two storey units and 2 No. four bed dormer units (Figure 2)

2 METHODOLOGY

A study area, defined as 500m from the boundary of the proposed development area, was assessed to inform this report. Research was undertaken in two phases. The first phase comprised a paper survey of all available archaeological, historical and cartographic sources. The second phase involved a field inspection of the site.

2.1 PAPER SURVEY

- Record of Monuments and Places for County Wicklow;
- Sites and Monuments Record for County Wicklow;
- National Monuments in State Care Database;
- Preservation Orders List;
- Topographical files of the National Museum of Ireland;
- Cartographic and written sources relating to the study area;
- Wicklow County Development Plan 2022-2028;
- Arklow and Environs Local Area Plan 2018-2024;
- Aerial photographs;
- Excavations Bulletin (1970–2023).

Record of Monuments and Places (RMP) is a list of archaeological sites known to the National Monuments Section, which are afforded legal protection under Section 12 of the 1994 National Monuments Act and are published as a record.

Sites and Monuments Record (SMR) holds documentary evidence and field inspections of all known archaeological sites and monuments. Some information is also held about archaeological sites and monuments whose precise location is not known e.g. only a site type and townland are recorded. These are known to the National Monuments Section as ‘un-located sites’ and cannot be afforded legal protection due to lack of locational information. As a result, these are omitted from the Record of Monuments and Places. SMR sites are also listed on a website maintained by the Department of Housing, Local Government and Heritage (DoHLGH) – www.archaeology.ie.

National Monuments in State Care Database is a list of all the National Monuments in State guardianship or ownership. Each is assigned a National Monument number whether in guardianship or ownership and has a brief description of the remains of each Monument.

The Minister for the DoHLGH 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.

Preservation Orders List contains information on Preservation Orders and/or Temporary Preservation Orders, which have been assigned to a site or sites. Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.

The **topographical files of the National Museum of Ireland** are the national archive of all known finds recorded by the National Museum. This archive relates primarily to artefacts but also includes references to monuments and unique records of previous excavations. The find spots of artefacts are important sources of information on the discovery of sites of archaeological significance.

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

Documentary sources were consulted to gain background information on the archaeological, architectural and cultural heritage landscape of the proposed development area.

Development Plans contain a catalogue of all the Protected Structures and archaeological sites within the county. The Wicklow County Development Plan 2022-2028 and Arklow and Environs Local Area Plan 2018-2024 were consulted to obtain information on cultural heritage sites in and within the immediate vicinity of the proposed development area.

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

Excavations Bulletin is a summary publication that has been produced every year since 1970. This summarises every archaeological excavation that has taken place in Ireland during that year up until 2010 and since 1987 has been edited by Isabel Bennett. This information is vital when examining the archaeological content of any area, which may not have been recorded under the SMR and RMP files. This information is also available online (www.excavations.ie) from 1970–2023.

2.2 FIELD INSPECTION

Field inspection is necessary to determine the extent and nature of archaeological and historical remains, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information.

The archaeological field inspection entailed -

- Walking the proposed development and its immediate environs.
- Noting and recording the terrain type and land usage.
- Noting and recording the presence of features of archaeological or historical significance.
- Verifying the extent and condition of any recorded sites.
- Visually investigating any suspect landscape anomalies to determine the possibility of their being anthropogenic in origin.

3 RESULTS OF ARCHAEOLOGICAL ASSESSMENT

3.1 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The proposed development area is located in the townland of Tinahask Upper, within the parish of Arklow and the barony of Arklow in County Wicklow. The site comprises part of one large field of pasture bordered to the north by the Abbeylands residential estate, to the east by a open fields, to the south by Oakwood Court residential estate / Avalon Road, and to the west by a railway line. There are no recorded archaeological sites within the the proposed development area, or even the wider study area. The closest recorded monument comprises the Zone of Archaeological Potential for the historic core of Arklow (WI040-029) located c. 694m to the northeast of the proposed development area (Figure 1).

One previous archaeological investigation has taken place in the vicinity of the proposed development area, in advance of a water main rehabilitation project in 2013, however no finds or features of archaeological significance were exposed during the works.

3.1.1 Prehistoric Period

Mesolithic Period (c. 8000–4000 BC)

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.

There is some evidence within the archaeological record that indicates that Wicklow was inhabited from the late Mesolithic period (BC 5500-4000) with flint scatters recorded from Ardairy, near Brittas Bay and on Corporation Lands to the south of Wicklow town (Grogan and Kilfeather 1997, 1). Likely, the proximity of the coast and the estuary of the River Avoca (c.1km northeast) would have made the landscape containing the proposed development area attractive for settlement during this period.

Neolithic Period (c. 4000–2500 BC)

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. These monuments are more common in the northern part of County Wicklow (within the Wicklow Mountains). An excavation carried out in advance of the M11 Arklow Bypass Road Scheme (Bennett 1998:683, Licence No. 97E0083), c. 3.3km north of the proposed development area, uncovered shallow pits (WI040-055) containing flint artefacts and a large number of Neolithic pottery sherds. This suggests that the wider area at least was somewhat occupied at this time.

Bronze Age (c. 2500–800 BC)

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. A ring ditch (WI040-047), which may represent a Bronze Age burial monument, was identified through aerial photography, c. 3km to the north of the proposed development area in Killiniskyduff townland.

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. The nearest recorded burnt mounds to the proposed development area are the two (WI045-015) excavated at Ballynatin townland c. 1.1km to the southwest in advance of the N11 Arklow Bypass in 1997. Associated with these mounds of burnt material was a platform made of roundwoods, one of which was date through dendrochronology to the late Bronze Age (c. 855BC). A further *fulacht fia* (WI045-017) is found at Ballynatin, c. 1.2km southwest of the proposed development area. Excavations in 2003 (Bennett 2003:2063, Licence No. 03E1692) also revealed slot trenches, pits, and post-holes in advance of the development of the Arklow IDA Enterprise Park which may date to this period, c. 1.3km to the southwest.

Excavations in advance of the construction of the M11 Arklow Bypass Scheme revealed a number of further burnt mounds, spreads, and pits (WI040-049/51-54) c. 3.1km to the north of the proposed development area. Excavations at this time (Bennett 1997:616, Licence No. 97E0324) also revealed a Bronze Age habitation site (WI040-048) c. 2.2km northwest of the proposed development area, consisting of an

oval structure and several post-holes. A number of pottery sherds from Beakers, Cordoned Urns, and Vast vessels were also recovered giving a wide timespan for activity here during the Bronze Age.

Iron Age (c. 800 BC–AD 500)

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.

There are no known monuments in the vicinity of the proposed development area that would suggest an active presence of Iron Age communities in this area.

3.1.2 Early Medieval Period (AD 500–1100)

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 closest ringfort (WI045-002) is found at Hollyfort c. 2.7km to the southwest of the proposed development area. The ringfort is demarcated by a wide shallow fosse built on the edge of a steep stream valley.

The latter part of this period is also characterised by Viking activity, especially along the eastern coast of Ireland. By AD 830, the Vikings began to establish coastal bases. Arklow is thought to have been one of these and may derive its name from *Arnkell*, a Norse name meaning a low-lying meadow near a river. The Vikings would have conducted coastal raids from the camp, as well as travelling inland via the Avoca River. Whilst no archaeological evidence has been discovered to date that confirms the settlement of this population, a burial was discovered during the 19th century between the Three Mile Water and Arklow town, which may be of Scandinavian origin. The burial was accompanied by two bronze oval brooches and a silver wire chain, with an attached silver needle case (Coffey 1902, 71-3). The exact location of the burial is unknown, but the artefacts have been dated to the 10th or early 11th centuries and are Scandinavian in origin.

3.1.3 Medieval Period (AD 1100–1600)

The piecemeal conquest by the Anglo-Normans of Ireland, which commenced in AD 1169, had a fundamental impact on the Irish landscape. Their presence was strongest in the East of the Country, and it was mainly in this region that land was carved up and granted to the newly arrived lords who participated. The main success of the Anglo-Norman occupation was the welding of scattered territories into a cohesive unit through the introduction of the English form of shire government. The rural landscape became a network of manorial centres; these units would generally contain a castle (motte and bailey), a manorial house and a number of dwellings, with extensive surrounding acreage. During the 14th to 16th centuries, tower houses were the typical residence of the Irish gentry and were a common feature in the Irish landscape.

Arklow and Wicklow became important medieval towns in the Anglo-Norman period. Arklow town retains its medieval linear pattern with long narrow property plots extending north and south from Main Street. In 1185 the manor of Arklow was granted to Theobald Fitzwalter by King John (Orpen 1911-20). The land was also granted to the Cistercians and it is possible that a religious house (WI040-029004) was established c. 1.4km northeast of the proposed development area. In 1927, a number of burials were discovered at this location, which is now covered by houses.

A large proportion of the land surrounding Arklow was parcelled up and given to the supporters of the English king. In 1264, Thomas, son of Theobald, granted land to the Dominicans and they established a religious house (WI040-029001) on the southern side of Arklow town c. 989m northeast of the proposed development area. Portions of the church and claustral buildings survived into the mid-18th century. The site is now a park within the walled graveyard (WI040-029009) with 18th and 19th-century headstones arranged around the perimeter. The graveyard at the site of the medieval church of St. Mary (WI040-029007) has also been transformed into a park, again with 18th and 19th-century headstones lining the perimeter, located c. 793m northeast of the proposed development area.

By the 14th century, the Fitzwalters were beginning to adopt the name Butler, which derived from the position of chief Butler to the Monarch. A ceremonial part of the

privilege was to offer the newly crowned king a goblet of wine. However, the real benefit was that the Fitzwalters were entitled to a large portion of all wine imported into Ireland as a form of tax. They kept this privilege up until the 19th century when they sold it back to the State for a large sum (Curtis 1941). Although they established the 13th-century castle at Arklow, it represented one of many estates and it was during the 14th century they decided to move the centre of operations to Kilkenny with Kilkenny Castle becoming their main home. Caretakers were appointed to look after affairs in Arklow including the castle, which may have replaced an earlier defensive structure. The remains of the castle (WI040-029002), which consists of the walls of a tower, c. 8m high and portions of curtain wall are situated c. 1km north of the proposed development area.

After the 14th century, the town suffered from a number of raids from the O'Tooles and O'Byrnes. The town appears to have suffered from considerable depopulation but survived as an entity until the end of the 16th century. At this time, the Butlers (now Earls of Ormonde) renewed their interest in the town. It is clear from a covenant dating to 1571 that the town had become dilapidated and the defences were in poor condition.

There may have been a harbour within the town; a 'haven' is mentioned in a 1571 covenant as are town defences. The harbour was probably located on the east side of the town where there are still quays today. Kerrigan (1995, 38) stated that in 1576, what must have been earthwork ramparts were constructed around Wicklow and Arklow. Of the medieval town, only the street pattern and a portion of the castle (WI040-029002) survive. The 1571 covenant between the earl of Ormond and the burgesses of Arklow mentions that the burgesses shall 'at their own charges make strong gates, ditches and pales for the better defence of said town' (Curtis 1932). There is no positive evidence that these defences were built and there are no surviving remains. The alignment, however, and the length of the long boundary which delimits the burgage plots on the south side of Main Street (c. 943m north of the proposed development area) suggests that some form of defence probably existed, possibly an earthen rampart and fosse (Bradley and King 1989).

3.1.4 Post-Medieval Period (AD 1600–1800)

During the Civil War against King Charles I, the leader of the Royalists in Ireland was James Butler, Earl of Ormonde; however, he was not successful against Cromwell, who after capturing Drogheda, arrived in Arklow on the 29th of September 1649, on his way to Wexford. His army camped across the Avoca River at Sheepwalk and prepared to attack. A message was sent calling on the garrison to surrender. If they agreed, everyone could go free, if they resisted everyone would be killed. The town surrendered to Cromwell and he held court within the castle, which he all but demolished on his departure.

The subsequent significant event took place on June 9th 1798, known as the Battle of Arklow (WI040-061) situated c. 1km to the northwest of the proposed development area. Regarded as a pivotal moment in the 18th century struggle for independence, it holds immense historical significance. While precise numbers remain elusive, it is

generally accepted that the garrison forces numbered around 3,000, while the insurgent fighters ranged between 10,000 and 12,000.

The 18th century witnessed a more pacified Ireland and the political climate settled; this saw a dramatic rise in the establishment of large residential houses around the country. This was largely due to the fact that after the turbulence of the preceding centuries, the success of the Protestant cause and the effective removal of any political opposition, the country was at peace. The large country house was only a small part of the overall estate of a large landowner and provided a base to manage often large areas of land that could be dispersed nationally. During the latter part of the 18th century, the establishment of a parkland context (or demesnes) for large houses was the fashion. Although the creation of a parkland landscape involved working with nature, rather than against it, considerable construction effort went into its creation. Major topographical features like rivers and mountains were desirable features for inclusion in, and as a setting, for the large house and parkland. The proposed development area is located c. 1.1km to the northwest of the demesne landscape associated with Lamberton House, which was also the site of a cock-fighting stadium. The late 18th century mapping of the area does not show any large houses in the vicinity of the proposed development, although the mid-19th century map shows a large farmhouse with associated outbuildings and orchard to the immediate south of the application site.

3.2 SUMMARY OF PREVIOUS ARCHAEOLOGICAL FIELDWORK

A review of the Excavations Bulletin (1970-2023) has revealed that no archaeological investigations have been carried out within the proposed development area. One investigation has taken place in the wider study area and is summarised below. Archaeological monitoring of site investigation works (Bennett 2013:523, Licence No. 12E0162ext) was carried out in advance of a water main rehabilitation project that took place in 2013 c. 450m to the north. No finds or features of archaeological significance were exposed during the works.

3.3 CARTOGRAPHIC ANALYSIS

William Petty, Down Survey, Barony of Arklow, c. 1655

The town of Arklow is marked within the Shires of Arklow on this map. The town includes the castle (WI040-029002), abbey (WI040-029001), and a small number of houses; however, they are representations of buildings rather than an accurate guide. A parcel of land to the south of the town is annotated as 'Abbeyland', which is approximately equivalent to the current townland. . No features of archaeological potential are depicted within open space to the south in the vicinity of the proposed development area.

Arthur Nevill, Map of the County of Wicklow, 1800 (Figure 3)

Nevill's map depicts the town of Arklow to the south of the 'Ovoca River'. The proposed development is located within the open fields of 'Tinnihask' to the east of the main road leading south from the town. To the west, a school, Lamberton House

and demesne are depicted. To the south, the townlands of 'Knockenran' and 'Money' are shown.

Ordnance Survey Map, 1840, scale 1:10,560 (Figure 4)

This is the first map to accurately depict the proposed development area. The proposed development area is situated within at least six fields within Tinahask Upper townland. The northern perimeter of the proposed development also defines the townland boundary between Tinahask Upper and Abbeylands / Knockanrahan Lower. Two unlabelled structures are depicted c. 100m to the southeast, possibly representing farm buildings and an orchard. A path led from the southeastern structure and through the proposed development area towards Knockanrahan Lower.

Ordnance Survey Map, 1909, scale 1:2,500 (Figure 5)

On this map, the proposed development area is now found within two fields. The farmyard to the southeast remains extant while the smaller structure to the southwest is no longer depicted. To the immediate west the Dublin & South Eastern Railway line has been constructed within a deep cutting. A bridge that crosses the railway line is depicted to the immediate southwest that connects the farm buildings to the main road to the northwest.

3.4 DEVELOPMENT PLAN

The Wicklow County Development Plan 2022-2028 and Environs Local Area Plan 2018-2024 recognises the statutory protection afforded to all Record of Monuments and Places (RMP) sites under the National Monuments Legislation (1930–2014). The development plan lists a number of aims and objectives in relation to archaeological heritage (Appendix 1).

There are no recorded archaeological sites within the study area and none located within the proposed development area. The closest recorded monument comprises the Zone of Archaeological Potential for the historic core of Arklow (WI040-029) located c. 694m to the northeast of the proposed development area.

3.5 TOPOGRAPHICAL FILES OF THE NATIONAL MUSEUM OF IRELAND

Information on artefact finds from the study area in County Wexford 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 proposed scheme or its immediate environs.

3.6 AERIAL PHOTOGRAPHIC ANALYSIS

Inspection of the aerial photographic coverage of the proposed scheme held by the Ordnance Survey (1995–2013), Google Earth (2008–2023), Bing Maps, and Apple Maps failed to reveal previously unrecorded sites of archaeological potential. As of the year 2000 (Ortho 2000) areas of the site and land to the east were used as a possible race track or dirt track. The remainder of the site has continued as undeveloped fields of pasture to the present day.

3.7 FIELD INSPECTION

The field inspection sought to assess the site, its previous and current land use, the topography and any additional information relevant to the report. During the course of the field investigation the proposed development site and its surrounding environs were inspected (Figure 1).

The site inspection was carried out on the 6th of September 2023 in dry bright conditions. The area of proposed development comprises part of one large field of pasture bordered to the north by at the Abbeylands residential estate (proposed access via Church View), to the east by a open fields of pasture and Arklow Golf Club, to the south by Oakwood Court / Avalon Road, and to the west by the Dublin to Rosslare railway line (Plates 1 and 2). The site slopes gradually towards the northeast with a 10m difference in height above sea level (c. 27-37m OD) from the southwest to northeast perimeter of the application area (Plate 2). The railway line is not visible from the development site, being located in a cutting at this point. A 3m buffer is proposed between the railway and the proposed development to allow for maintenance of a biodiversity zone. The townland boundary between Tinahask Upper and Abbeylands/ Knockanranhan Lower forms the northern boundary of the proposed development site (Plate 3). This comprises an internal ditch and raised earthen embankment which was overgrown with mature vegetation and trees.

Site investigation works were underway to the immediate east of the proposed development during the time of the site inspection. The excavation for soak-away pits had already occurred prior to field inspection within the development site which were backfilled at the time of inspection (Plate 4). No evidence for archaeological remains were noted in these open pits.

No features or structures of archaeological potential were identified within the proposed development area during the field inspection.

4 CONCLUSIONS

This archaeological assessment was commissioned by Wicklow County Council to assess the potential for the survival of archaeological features in advance of a proposed residential development at Tinahask Upper, Arklow, County Wicklow. There are no recorded archaeological sites within the the proposed development area or wider study area. The closest recorded monument comprises the Zone of Archaeological Potential for the historic core of Arklow (WI040-029) located c. 694m to the northeast of the proposed development area.

A review of the Excavations Bulletin (1970-2023) has revealed that no previous archaeological investigations have been carried out within the proposed development area. One investigation took place c. 450m to the north in advance of a water main rehabilitation project in 2013. No finds or features of archaeological significance were exposed during the monitoring works.

Analysis of cartographic sources has revealed that the proposed development area was historically situated within open fields to the south of Arlow town. Mid-19th century ordnance survey maps depict the proposed development area within at least seven fields in Tinahask Upper townland. The northern perimeter of the proposed development also defines the townland boundary between Tinahask Upper and Abbeylands / Knockanrahan Lower. A farmyard was noted to the southeast, possibly associated with an orchard. A path led from the southeastern structure and through the proposed development area towards Knockanrahan Lower and the main road to Arklow. The early 20th century mapping shows the railway line bordering the site to the immediate west within a cutting.

Analysis of aerial photographic record available for the area did not reveal any previously unrecorded sites of archaeological potential. As of the year 2000 parts of the site and land to the east were used as a possible race track or dirt track. The remainder of the site has continued as undeveloped fields to the present day.

The field inspection did not reveal any features or structures of archaeological potential within the proposed development area. The terrain slopes gradually to the northeast, with a drop of c. 10m within the application site.

5 IMPACT ASSESSMENT AND MITIGATION STRATEGY

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

5.1 IMPACT ASSESSMENT

- The proposed development area is characterised by undeveloped east-facing pasturegreenfield. Whilst no evidence was identified during the assessment for previously unrecorded archaeological features, it is possible that such remains survive with no surface expression. As such, ground disturbances, such as the provision of infrastructure and associated utility services, may have a significant negative effect on previously unrecorded archaeological features or deposits that have the potential to survive beneath the current ground level.
- The townland boundary between Tinahask Upper and Abbeylands/Knockanrahan Lower comprises the northern boundary of the proposed development area. This boundary may be partially removed to provide access into the proposed residential estate, resulting in a mild negative impact.

5.2 MITIGATION

- Given the scale and undeveloped condition of the proposed development area it is recommended that a geophysical survey and programme of test trenching be carried out across the site. Depending on the results of these surveys, it is possible that further archaeological mitigation may be required. This may include the preservation by record or *in situ* of archaeological remains, and/or archaeological monitoring. Any further mitigation will require agreement from the National Monuments Service of the DoHLGH.
- It is recommended that the removal of any such sections of townland boundary be subject to archaeological monitoring to record the form and investigate the antiquity of its construction.

It is the developer's responsibility to ensure full provision is made available for the resolution of any archaeological remains, both on site and during the post excavation process, should that be deemed the appropriate manner in which to proceed.

Please note that all recommendations are subject to approval by the National Monuments Service of the Heritage and Planning Division, Department of Housing, Local Government and Heritage.

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- www.archaeology.ie – DoH/LGH 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 and 2013).
- www.googleearth.com – Satellite imagery (2005–2023).
- www.apple.com/maps/ - Satellite imagery (2023).

APPENDICES

APPENDIX 1 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 the Department of 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 Arts, Heritage, Gaeltacht and the Islands) 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 Arts, Heritage, Gaeltacht and the Islands 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 €3,000 or imprisonment for up to 6 months. On summary conviction and on conviction of indictment, a fine not exceeding €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.

WICKLOW COUNTY DEVELOPMENT PLAN 2022-2028

Archaeology Objectives:

CPO 8.1

To secure the preservation of all archaeological monuments included in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, and of sites, features and objects of archaeological interest generally. In the development management process, there will be a presumption of favour of preservation in-situ or, as a minimum, preservation by record. In securing such preservation, the Planning Authority will have regard to the advice and recommendations of the National Monuments Service of the Department of Housing, Local Government and Heritage.

CPO 8.2

No development in the vicinity of a feature included in the Record of Monuments & Places (RMP) or any other site of archaeological interest will be permitted which seriously detracts from the setting of the feature or which is seriously injurious to its cultural or educational value.

CPO 8.3

Any development that may, due to its size, location or nature, have implications for archaeological heritage (including both sites and areas of archaeological potential / significance as identified in Schedules 08.01 & 08.02 and Maps 8.01 & 8.02 of this plan) shall be subject to an archaeological assessment.

CPO 8.4

To require archaeological assessment for all developments with the potential to impact on the archaeological heritage of riverine, intertidal or sub tidal environments.

CPO 8.5

To facilitate new or improved public access to and erection of appropriate interpretive signage at National Monuments, archaeological sites, castles, sites of historic interest and archaeological landscapes in State or private ownership, as identified in Schedule 08.02 and Map 8.02 of this plan, in co-operation with landowners.

CPO 8.6

To protect the integrity of Baltinglass Hills archaeological landscape including identified monuments and their wider setting by resisting development that may

adversely impact upon the significance and understanding of this important landscape.

CPO 8.7

To support the inscription of Glendalough to Ireland's tentative UNESCO World Heritage Site list and promote a conservation led approach to facilitating visitor access and enjoyment of this internationally significant landscape.

CPO 8.8

To protect and promote the characteristics of historic towns in County Wicklow identified as zones of archaeological potential in the Record of Monuments and Places (RMP), ensuring that cognisance is given in relevant development proposals to retaining existing street layout, historic building lines and traditional plot widths where these derive from medieval or earlier origins.

CPO 8.9

To protect and promote the conservation of historic burial grounds (those that are generally no longer in use but which may contain sites and features on the Record of Monuments and Places (RMP) and/or RPS) and support greater public access to these where possible.

ARKLOW AND ENVIRONS LOCAL AREA PLAN 2018-2024

HT3

Protect and enhance the character, setting and environmental quality of natural, architectural and archaeological heritage, and in particular those features of the natural landscape and built structures that contribute to its special interest. The natural, architectural and archaeological heritage of the area shall be protected in accordance with the objectives set out in the Wicklow County Development Plan

APPENDIX 2 IMPACT ASSESSMENT AND THE CULTURAL HERITAGE RESOURCE

POTENTIAL IMPACTS ON ARCHAEOLOGICAL AND HISTORICAL REMAINS

Impacts are defined as ‘the degree of change in an environment resulting from a development’ (Environmental Protection Agency 2022). 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 3 MITIGATION MEASURES AND THE CULTURAL HERITAGE RESOURCE

POTENTIAL MITIGATION STRATEGIES FOR CULTURAL HERITAGE REMAINS

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

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

DEFINITION OF MITIGATION STRATEGIES

ARCHAEOLOGICAL RESOURCE

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

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

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

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

disturbed or destroyed. The programme will result in the preparation of a report and ordered archive (ClfA 2020c).

Underwater Archaeological Assessment consists of a programme of works carried out by a specialist underwater archaeologist, which can involve wade surveys, metal detection surveys and the excavation of test pits within the sea or riverbed. These assessments are able to access and assess the potential of an underwater environment to a much higher degree than terrestrial based assessments.



Site Location

M11

Arklow

WI040-029 Historic Town

M11

Dublin to Rosslare
Railway Line

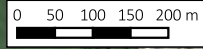
WI045-017
Fulacht fia

WI045-015
Burnt mound

WI045-014001-
Enclosure

Legend

- Site Boundary
- Recorded Monuments
- Zone of Notification



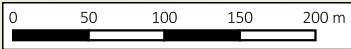
IAC Archaeology

Title	Site location showing nearby archaeology (Google Earth, July 2021)	Scale	1:10000@A4	Drawn By	DL
Project	Tinahask Upper, Arklow, Co. Wicklow	Date	18.07.2024	Checked By	FB
				Approved By	FB/MT
		Job No.	J4201	Fig. 2	Rev. 1



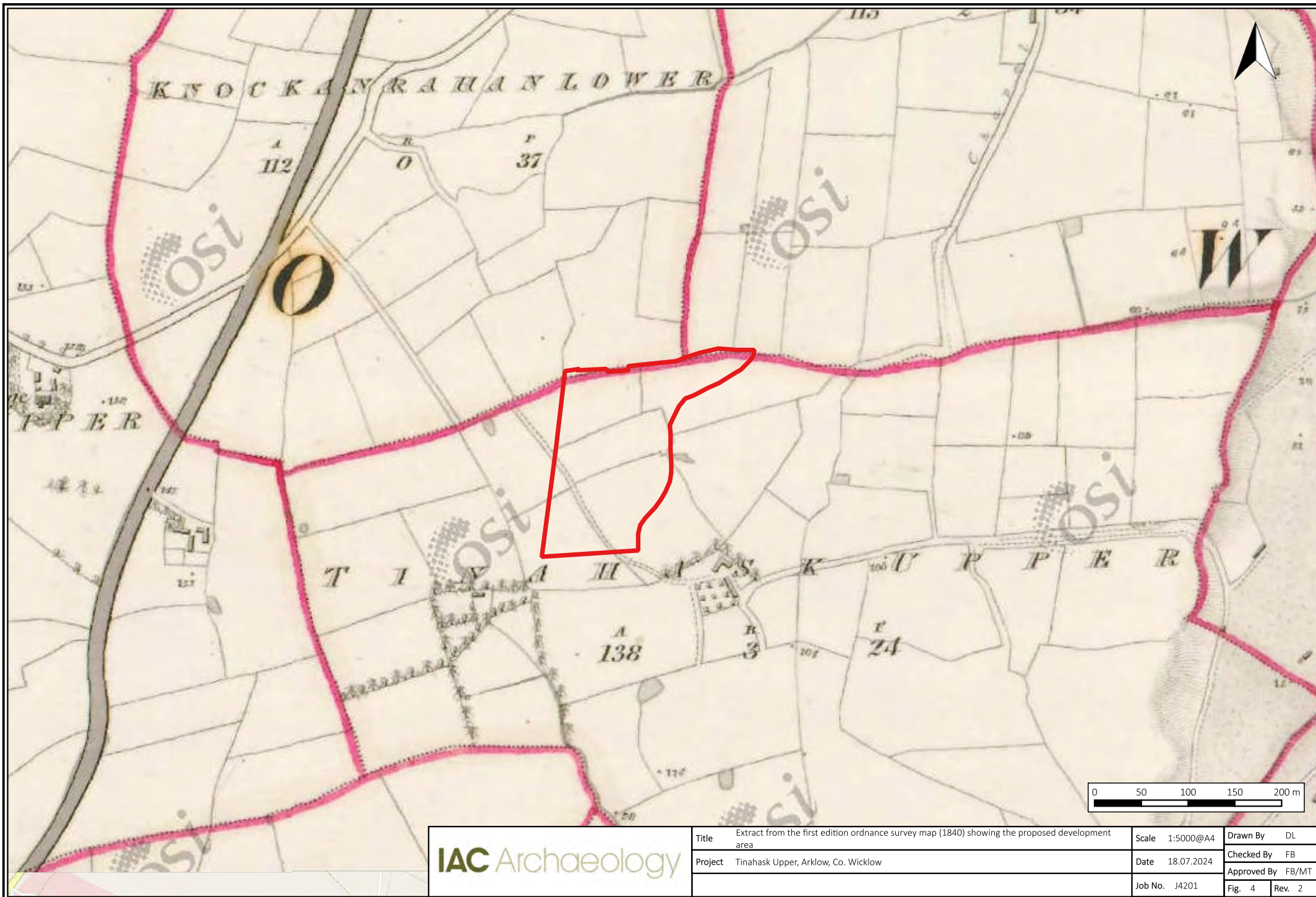
IAC Archaeology

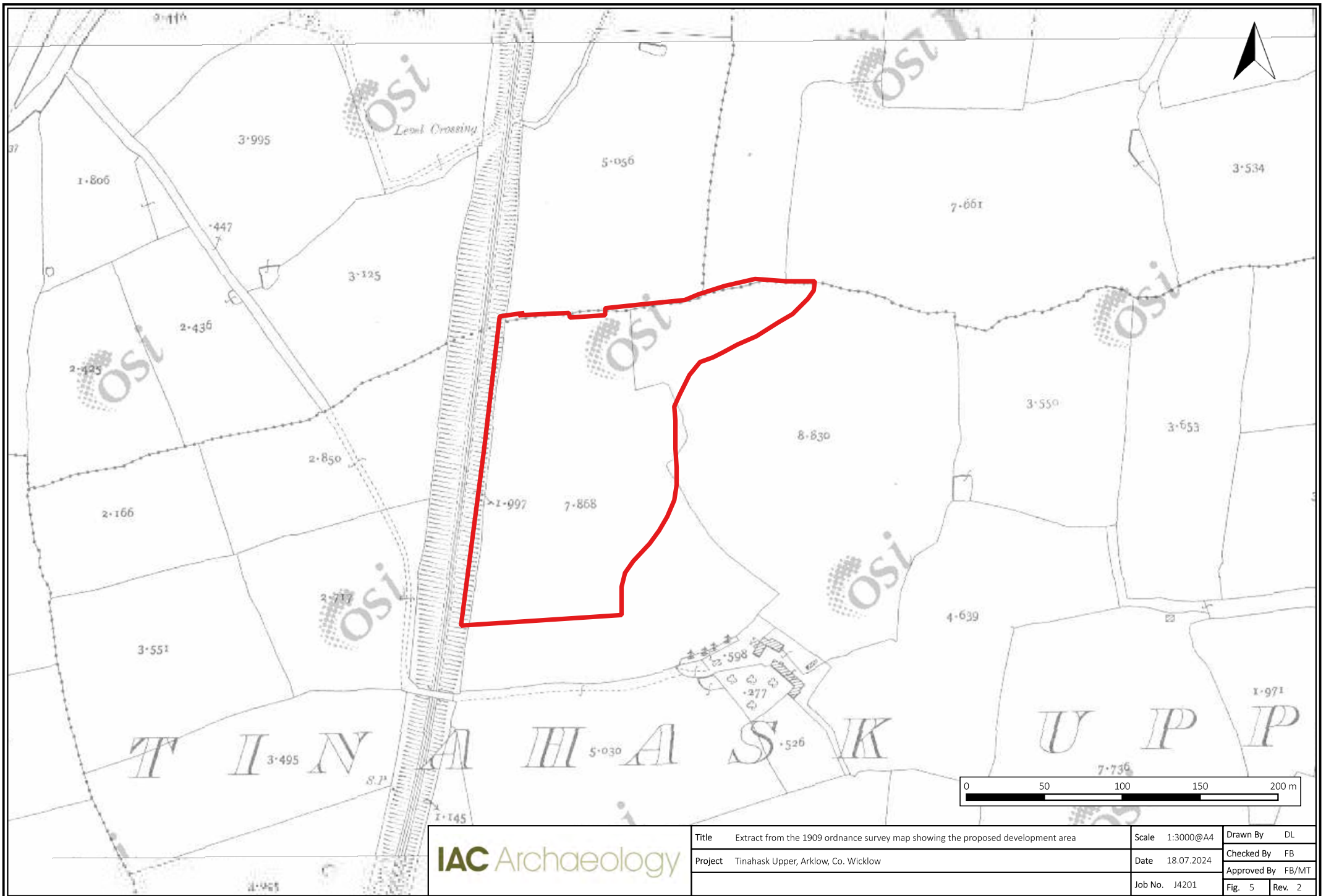
Title	Plan of proposed development	Scale	NTS	Drawn By	DL
Project	Tinahask Upper, Arklow, Co. Wicklow	Date	18.07.2024	Checked By	FB
				Approved By	FB/MT
		Job No.	J4201	Fig. 2	Rev. 2



IAC Archaeology

Title	Extract from Nevill's map (1760) showing approximate location of proposed development area	Scale	NTS	Drawn By	DL
Project	Tinahask Upper, Arklow, Co. Wicklow	Date	05.09.2023	Checked By	FB
		Job No.	J4201	Approved By	FB/MT
		Fig.	3	Rev.	-





IAC Archaeology

Title	Extract from the 1909 ordnance survey map showing the proposed development area	Scale	1:3000@A4	Drawn By	DL
Project	Tinahask Upper, Arklow, Co. Wicklow	Date	18.07.2024	Checked By	FB
				Approved By	FB/MT
		Job No.	J4201	Fig.	5
				Rev.	2



Plate 1: Western portion of site, facing southwest



Plate 2: Eastern portion of site, facing southeast



Plate 3: Townland boundary, facing northeast



Plate 4: Backfilled 'soak-away' pit, facing northeast