

Appendix 11.5

Archaeological Impact
Assessment Report, Arklow
Town Marsh and Ferrybank
Licence No. 18E0263

COURTNEY • DEERY

ARCHAEOLOGY & CULTURAL HERITAGE

Archaeological Impact Assessment Report

Arklow Town Marsh and Ferrybank,

Arklow

County Wicklow

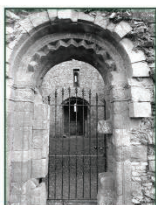
Report to inform Arklow Flood Relief
Scheme

Licence No. 18E0263

Licensed Director: Siobhan Deery

On behalf of Wicklow County Council and
the Office of Public Works

23 January 2020



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EXECUTIVE SUMMARY

This report describes the results of archaeological monitoring of SI works for the proposed Arklow Flood Relief Scheme in the townlands of Marsh and Ferrybank, Arklow, County Wicklow. The work was carried out on behalf of Wicklow County Council (WCC) and the Office of Public Works (OPW) in order to inform the programme of works.

Site investigations were initially to take the form of test pits approximately 2m x 2m, however due to the wet ground conditions experienced in the marsh area, window sampling in 12 locations took place. No archaeological features, finds or soils were encountered as a result of the on-site archaeological monitoring programme.

Archaeological test excavation was planned along the proposed route of a flood embankment. The location of this embankment lies partly within the Zone of Archaeological Potential (ZAP) associated with the historic town of Arklow (WI040-029) and lies in the vicinity of the site of a graveyard (WI040-029008-). Also, of historic interest, in the vicinity of the proposed works is the site of the 'Ovoca Brewery' which is shown on the six-inch 1st edition Ordnance Survey map. However, this area has experienced significant disturbance in recent years.

It is for the above reason that test excavation was proposed, however due to access issues, the waterlogged ground conditions, dense and overgrown vegetation, test excavation was not possible along this route.

Having consulted with the OPW and WCC, it is proposed to carry out archaeological testing or topsoil stripping post planning at the preconstruction stage of the development, at a time when a working wayleave has been devised and the area is fenced off so investigation can proceed in a safe and timely manner while minimising the area of disturbance. The sequence of works is outlined in the Development of an Archaeological Strategy in Section 8 of the report.

Ideally, this will take place at the earliest stage of the site preparation/ enabling works contract. This reduces the exposure and risk to the client, once there is time and resources in the programme so archaeological investigation can take place in a scheduled manner in advance of the main construction contract.

Please note that all recommendations are subject to approval by the National Monuments Section of the Heritage and Planning Division, Department of Culture, Heritage and the Gaeltacht.

1. INTRODUCTION

1.1. General

This report provides an archaeological assessment in advance of proposed flood alleviation works at the Arklow Town Marsh, Ferrybank, Arklow, County Wicklow. It incorporates a desk study and the results of archaeological monitoring of site investigation works.

Test excavation along the location of a proposed flood embankment was initially proposed but due to waterlogged ground conditions, the presence of electricity wires and pylons as well as some areas being inaccessible due to overgrown vegetation, it was not possible to carry out this exercise as planned. It is anticipated that this report shall inform the EIAR being prepared for the Arklow Flood Relief Scheme (Figure 1). These works were carried out on behalf of OPW and Wicklow County Council.

1.2. Overview of Arklow Flood Scheme

Wicklow County Council (funded by the Office of Public Works, 'OPW') are proposing a flood relief scheme for Arklow town (Arklow Flood Relief Scheme). Arklow has suffered a number of significant flooding events in the last thirty years. The town is at risk from both fluvial flooding from the Avoca river and tidal flooding via the harbour mouth and the Avoca estuary. East of the Arklow Bridge (along the North and South Quays, towards the dock area) is prone to tidal flooding whilst west of Arklow Bridge (along the southern bank of the river) and the Ferrybank area are low lying urban areas built on the narrow floodplain and are affected primarily by fluvial flooding.

The Arklow Flood Relief Scheme will comprise the provision of direct flood defences as well as conveyance improvements in the river. These works would assist in alleviating future flooding in Arklow town. At the Arklow Town Marsh, the subject for this method statement, it is proposed to provide a flood defence earthen embankment. The embankment will be located on the edge of the Arklow Town Marsh and will lie adjacent and to the west of an area previously recorded as a site of a graveyard (WI040-029008) now occupied by houses. It is also partly located within the zone of archaeological potential for the Historic Town.

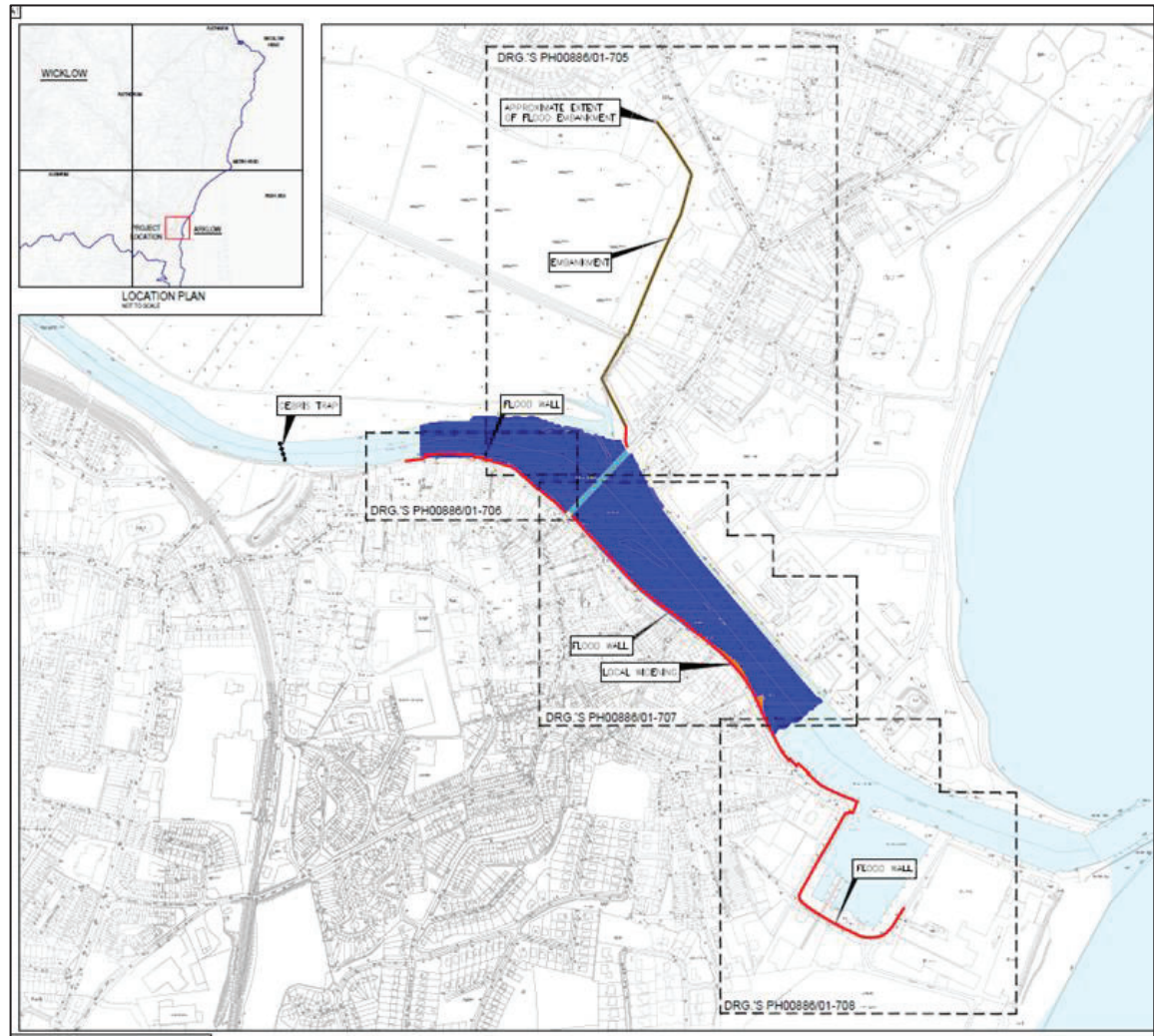


Figure 1 Overview of Arklow Flood Relief Works

1.3. Site Location

Arklow Town Marsh lies to the north of Arklow Town to the west of Ferrybank Road and to the rear of houses facing onto Ferrybank Road. A former causeway leading to Shelton Abbey House and demesne crosses the Marsh. The area proposed for archaeological investigations is located at the margins of the wetlands, while the site investigations (SI) took place in the marsh; both areas are prone to flooding and investigations are subject to appropriate conditions being in place before they can commence.



Plate 1 View towards Arklow Town Marsh and area proposed for investigation (20 Feb 2018)

2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1. Activity during the Prehistoric Period

The earliest known evidence for prehistoric activity in Arklow dates to the Bronze Age, though later Mesolithic flint scatters have been found along Wicklow's coastline, attesting to much earlier human activity (Grogan and Kilfeather 1997).

The most impressive Late Bronze Age assemblage from the county is that contained in the hoard from Kish, c. 2.8km south of Arklow town. The hoard was found in the last century, during the removal of a field fence, and contained a socketed spearhead, two axeheads and a knife (Eogan 1983). Settlement evidence is difficult to pinpoint for the later Bronze Age period in the county, however, *fulachta fia* may be indicative of the nature of lowland settlement during this period. These have a limited distribution in Wicklow, being confined to the eastern half of the county. During archaeological monitoring along the then-proposed bypass of Arklow town, a burnt mound was identified. The site was situated c. 1.5 miles south of Arklow, and to the west of the old Dublin–Wexford road. Excavation revealed three subcircular areas of burnt stone and charcoal concentrations. Some shattered flint and one fragmented worked piece was recovered. A wooden feature was also revealed, partly underlying the burnt spreads. The wooden feature consisted of c. 23 narrow lengths of wood, laid in a north–south direction, forming a deliberately prepared surface. Under

this feature, a series of moderately preserved wooden stakes were excavated. A sample of this wood was dated, and a felling date of BC 856 was recorded (Licence No. 97E0128; Excavations Bulletin Ref. 1997:609; SMR WI045-015).

2.2. Pre-Viking Settlement

Arklow is generally considered as being a town of Viking origins, however long before the Vikings arrived there was a settled fishing community at the estuary of the River Avoca. Though not dated, a section of an early dugout canoe was found on the south side of the river measuring 6ft long and 25 inches in maximum width, which may provide evidence for pre-Viking activity in the area. In the 2nd century BC, the Greek cartographer Ptolemy on his map of the world indicated on the Irish coast a settlement called *Manapii* which historians now agree is Arklow. The town also has associations with St Kevin in the 5th century, with local tradition holding that after he blessed the fishermen and their boats, the sea yielded a rich crop and the community was free from sickness (Carlton & Rees 1987).

2.3. Viking Arklow

The name Arklow is of wholly Scandinavian origin, with 'lo' meaning river meadow and 'Ark' being derived from the Viking name Arknell, i.e. Arknell's Meadow. The river estuary would have been an attractive feature and presumably provided safe harbour for the Viking ships. It is not known when a more formal harbour was constructed, but the repair of the 'haven' is mentioned in the 1571 covenant between the earl of Ormond and the burgesses of Arklow. The original harbour was probably located to the east of the town, where there are still quays today.

There is direct and circumstantial evidence of an early Viking raiding base on the Wicklow coast, probably at Arklow, in the mid-830s. Heathens from 'Inber Dee', which may well refer to Arklow, are mentioned in the annals as having raided the ecclesiastical establishment at Glendalough, as well as other monastic settlements. However, there is no indication as to whether or not the 'Inber Dee' base marks the beginning of permanent inhabitation of the County Wicklow coast. Pagan burial south of Three Mile Water, and perhaps also on the Murragh, at Wicklow, seems to imply more regular inhabitation of the Arklow–Wicklow region before the second half of the 10th century. If the 12th century extents of the lands of Arklow and Wicklow area are reliable indicators, there must also have been a considerable rural, agriculture-based, settlement in this region, for which it is conceivable that Arklow and Wicklow were themselves the urban nuclei. The degree to which they were true towns like Dublin, with a trading economy and professional craftsmen, is indeterminable (Etchingham 1994).

2.4. Development of Arklow in the Medieval Period

The medieval town of Arklow was situated at the foot of a hill, on the south bank of the River Avoca and its estuary. Theobald Fitzwalter was granted the manor of Arklow by Prince John, in 1185. The property remained in the hands of Theobald's descendants, the Butlers, throughout the Middle Ages.

A Cistercian abbey (RMP WI040-029004) was founded on the 'island of Arklow' at the beginning of the 13th century, though it appears to have been short-lived. The site (the 'Island of Arklow') was granted by Theobald FitzWalter to the Cistercians of Furness for the foundation of an abbey, which may indicate the beginnings of Arklow as an Anglo-Norman town (Bradley & King 1989). The Cistercians commonly preferred isolated, rural, locations, perhaps indicating that the Viking settlement here was no longer in existence or simply that this area was sufficiently removed from the Viking settlement south of the river. By 1205 Fitzwalter had transferred the monks to a new monastery in Abington, Co. Limerick (Gwynn & Hadcock 1970, 126). Presumably they had established some form of temporary church by this time but it is not clear what happened to it after 1205. O'Curry (O.S. Letters: Wicklow) noted that:

'an ancient graveyard with the site of a church was founded on the north side of the Bridge of Arklow in a sandbank in Ferrybank townland in this [Kilbride] parish. Several skeletons were found here, which were covered in flags, the sides being built with stones of various sizes and forms. The surface of the place is still covered with human bones...' (Ronan 1927, 103-4, note 9).

The site of this graveyard (RMP WI040-029008) has been identified by O'Curry and Ronan as the site of the Cistercian Abbey (RMP WI040-029004). The description of the abbey being founded on 'an island' and the discovery of the graveyard in the sandbank support this view. Lewis noted that in 1837 'the cemetery of the Cistercian Abbey is still being used as a burying-place by the Roman Catholics'.

To the west of the supposed Cistercian Abbey site, there was in 1839, according to Price (1934), a 'green mount' in which there was found some 'sepulchral urns containing ashes and bones partly consumed by fire'. This is presumably the same location as that recorded in the NMI topographical files for this townland; a 'tumulus' was being dug for manure in 1839, resulting in the unearthing of some urns and cremated bones. There is no visible trace of this site today (RMP WI040-029006). Price also suggested that there was a passage (RMP WI040-029005) leading north from the Dominican Friary towards the south bank of the River Avoca. The passage at one time contained a small stream, but it has now been filled in and covered over.

The medieval parish church the Parish church of St Mary (RMP WI040-029003) was located on the north side of Main Street. No remains survive above ground and the area has been turned into a public park.

Thomas Fitzwalter founded the Dominican Friary (RMP WI040-029001) in 1264 and was buried there in 1285. The Dominican friary was located in the rectangular site marked 'graveyard' on the south side of Main Street. The friary was suppressed in 1539, but parts of the church and claustral buildings survived until the

mid-18th century (Gwynn & Hadcock 1970). No buildings survive today and, like the parish church of St Mary, the site has been turned into a public park.

The 1571 covenant between the earl of Ormond and the burgesses of Arklow mentions that the burgesses shall 'at their own charge make strong gates, ditches and pales for the better defence said town' (Curtis 1932-43, v, p.211). There is no conclusive evidence that these defences were ever built, and there are no surviving remains. The alignment and length of the long boundary, however, that delimits the plots on the south side of Main Street suggests that some form of defence probably existed, possibly an earthen rampart and fosse.

The 13th century castle (RMP WI040-029002) whose remains sit on high ground at the west end of the town, overlooking the river, possibly replaced a pre-Norman structure (Bradley & King 1989). The remains of randomly coursed rubble stone consist of a stretch of curtain wall and a circular corner tower built on a rock outcrop. The tower is now three floored; there is no access to the first floor and the walls of the second floor are largely missing. There is a basal batter approximately 2.5m high on the north side. The curtain wall, some 8m high at its western end, runs southeast from the angle tower before turning almost due south, where it reduces in height from 6m to 4m.

In the 14th century, Arklow came under pressure from the native Irish, and the castle (RMP WI040-029002) was captured in 1331. The town, however, survived the Gaelic resurgence and managed to remain a bastion of the Pale. The 16th century saw the Butlers reasserting their interests in the manor. An important document from 1571 states that the town was in a state of dilapidation, and the castle, harbour and defences are specifically mentioned as being in poor condition. The town remained loyal to the crown during the nine years' war, and it was a supporter of the confederate cause between 1641 and 1649. The town surrendered to Cromwell in September 1649, as his army passed through, on route to Wexford.

2.5. Early Modern Period

By the early 19th century, Arklow was one of the few ports whose fishermen were 'constantly engaged in fishing', i.e. fishing was their sole means of livelihood (Rees 2013, 30). Lewis (1837) records fishing as the principal trade of the town and notes that although it was formerly very lucrative, it had become far less productive by the 1830s. The fishermen and their families occupied an area known as 'The Fishery', which was located roughly west of Main Street (its boundaries fluctuated over time) on the south side of the river. Lewis (1837) equated the Fishery with the Lower Town, which he claimed was to be distinguished from the Upper Town. The latter, according to Lewis, consisted of one principal street, lined with 'neatly built' houses. In contrast, the Lower Town was 'chiefly inhabited by fishermen' and contained 'thatched cabins' (Lewis 1837). The area flourished in the period between 1800 and 1950 and maintained a separateness from the main town, being seen as a distinct location. The parish rector, for example, Rev. Henry Lambert Bayly,

wrote in the early 19th century that the fishermen 'are a race distinct from the other inhabitants, occupying a separate part of the town' (cited in Rees 2013, 30).

3. RECORDED ARCHAEOLOGICAL SITES / MONUMENTS

Only the southeastern tip of Arklow Town Marsh is located within the zone of archaeological potential (ZAP) for the Historic Town of Arklow (WI040-029), as represented on the RMP published map (1995) (Figure 2 and Figure 3). The ZAP as currently represented on the Archaeological Survey of Ireland (ASI) online Historic Environment Viewer has been enlarged to incorporate the north bank of the river / southern edge of the Marsh and to encompass the junction of the R772 Road (Ferrybank) with the route through the Marsh (Figure 2). The enlargement of the ZAP at Ferrybank allows the inclusion of the recorded site of a graveyard and a Cistercian abbey (WI040-029008 & -029004).

According to Price (1934), there was a 'green mount' present in 1839 (somewhere to the west of the recorded Cistercian Abbey site, WI040-029004), in which there was found some 'sepulchral urns containing ashes and bones partly consumed by fire'. The site is recorded as a burial mound in the RMP (RMP WI040-029006) but its exact location is unknown and it is not scheduled for inclusion in the next revision of the RMP. There is no visible trace of this site today.

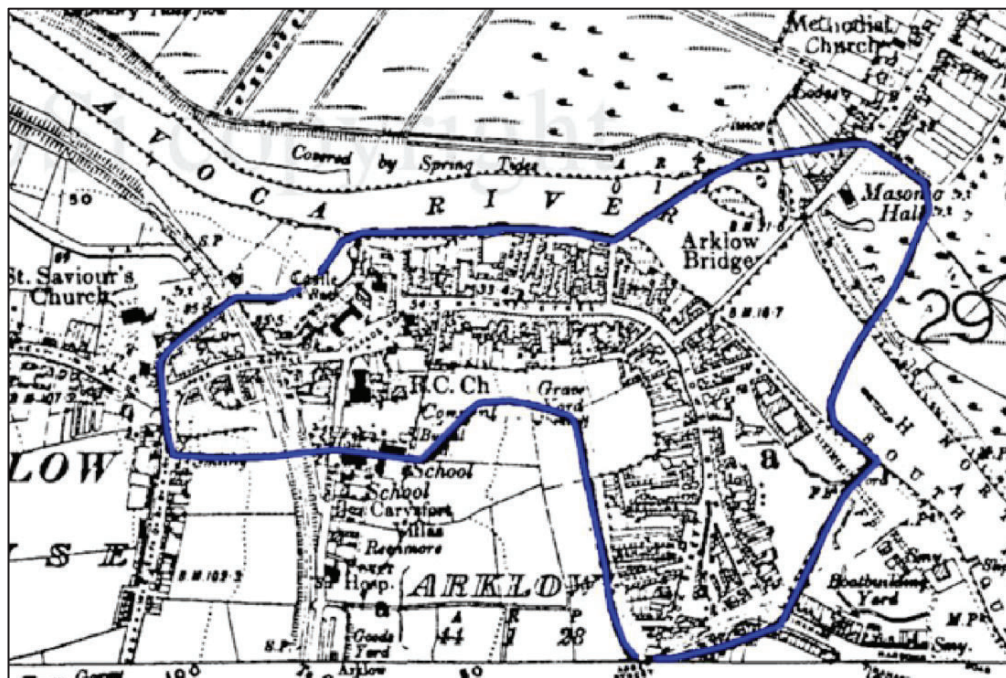


Figure 2 Published RMP map showing Zone of Archaeological Potential (in blue) for the Historic Town of Arklow, WI040-029

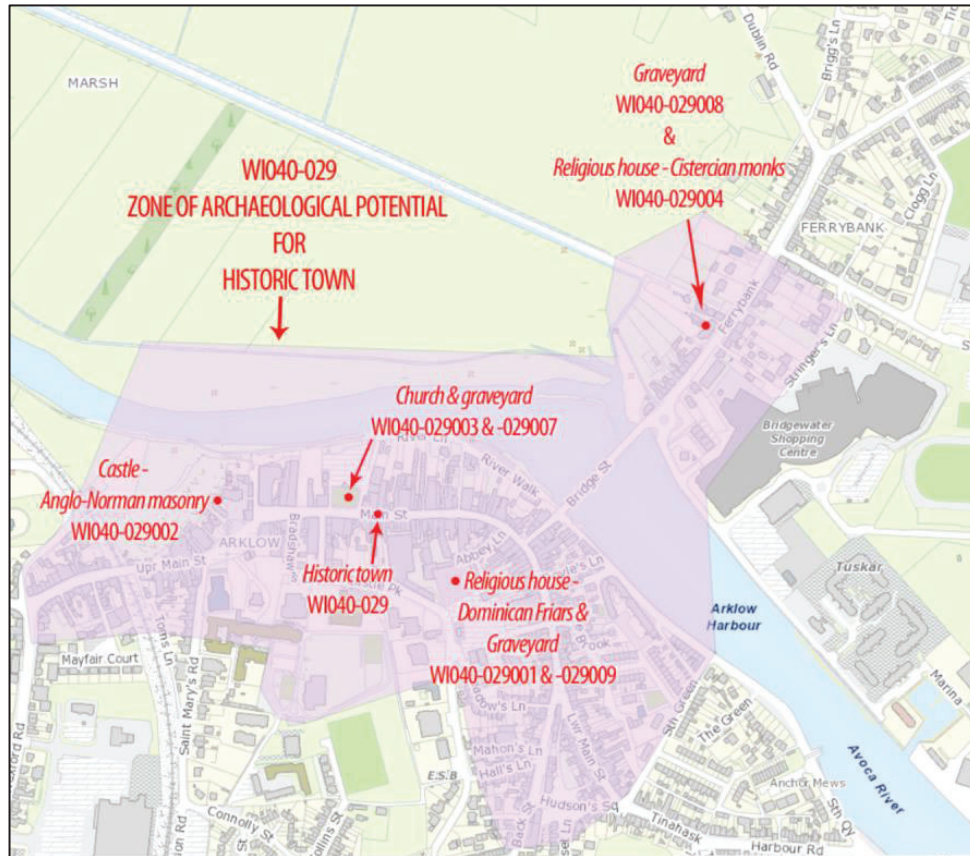


Figure 3 ASI Historic Online viewer showing Zone of Archaeological Potential for the Historic Town of Arklow (WI040-029) and individual RMP sites

4. PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS AND STRAY FINDS

There has been no previous archaeological investigations or work carried out in the Arklow Town Marsh.

The topographical files from the National Museum of Ireland (NMI) refers to a mound in Ferrybank on the northern bank of the Avoca River where finds consisting of a cist containing an urn and human remains were revealed (there is no NMI register number). The discovery was made in 1839 and appears to be consistent with the findings of a late Bronze Age (1200BC-500BC) burial place. Price (1934, 51) records the site as “at Ferrybank near Arklow there was in 1839 according to O’Curry a green mount in which whilst digging and carrying away for manuring land, there were found some sepulchral urns containing ashes and bones partly consumed by fire. Several pieces of broken urns are still visible, unfortunately none of the pottery was preserved”.

5. CARTOGRAPHIC ANALYSIS

5.1. Down Survey, c. 1656

One of the earliest representations of Arklow town is the Down Survey map of the Barony of Arklow, which dates to c.1656 (Figure 4). Though not very illustrative the map does show the important elements that made up Arklow town at that time: 'Arklow Castle', 'Abbyland' and the 'Abby' (the Dominican abbey south of the river). A number of large houses are depicted in the vicinity, including two houses to the east of 'Arklow Castle' and west of the 'Abby', while five houses of diverse sizes are located south of the 'Abby', closer to the coast. The town marsh is not indicated on the map, nor are the sites of the recorded graveyard and Cistercian abbey to the north of the river.

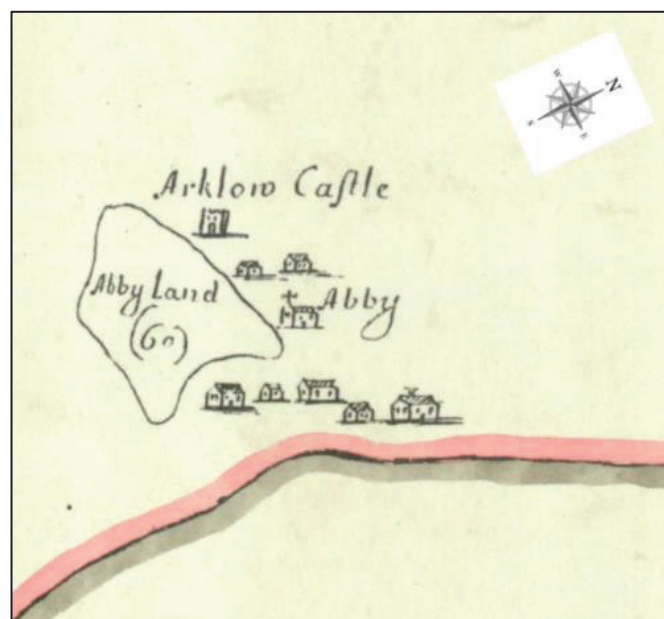


Figure 4 Down Survey map of the barony of Arklow, c. 1656

5.2. Ordnance Survey Mapping

The Ordnance Survey (OS) first edition six-inch map is the earliest accurate and detailed cartographic source for the study area. The map shows Arklow town on the south bank of the River 'Ovoca' (Avoca), with the town marsh occupying a large area north of the river, forming a separate townland called Marsh (Figure 5).

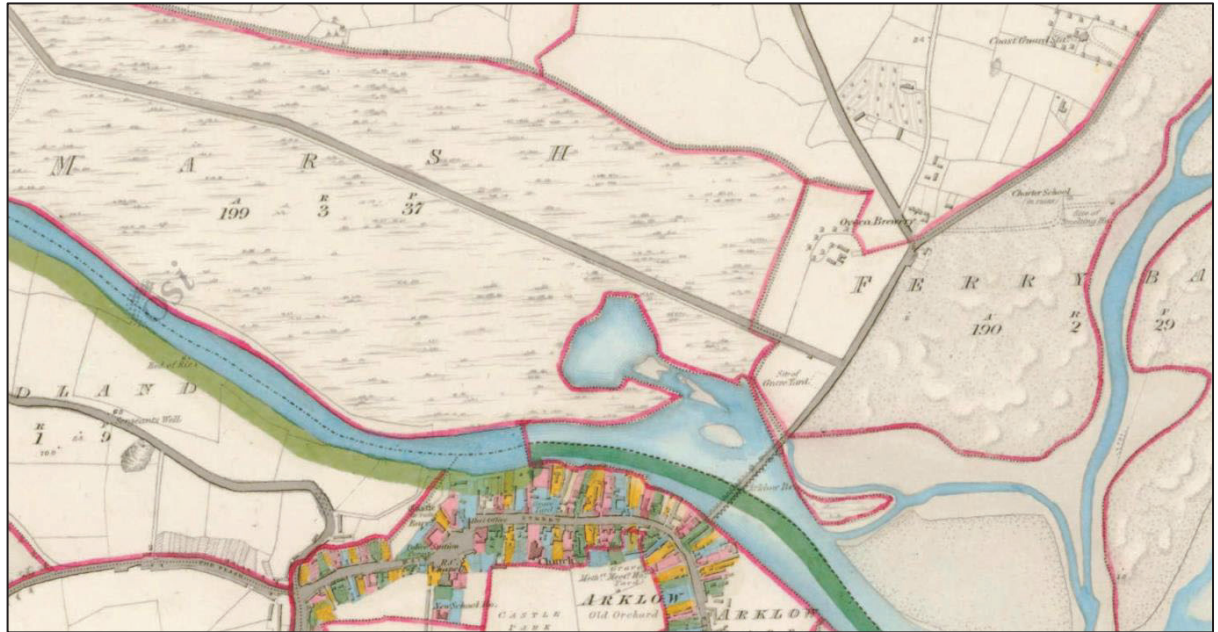


Figure 5 First edition Ordnance Survey six-inch map, 1838



Figure 6 First edition Ordnance Survey six-inch map, 1838, with the site of the graveyard, annotated and marked by a red dot.

Arklow Bridge crosses the river from the east end of the town, carrying the road north to Ferrybank. This road is met by the causewayed road leading eastwards from Shelton Abbey demesne, across the marsh. There is little development on this side of the river, with only the site of a graveyard and the Ovoca Brewery occupying plots between the road and the marsh (Figure 6). To the east of the brewery, a path leads across the estuary sands to the site of a smelting house and the ruins of a Charter School (Figure 5).

The first edition OS 25-inch map of 1907-09 demonstrates the expansion of Arklow town along the road leading north from Arklow Bridge in Ferrybank. New houses have been built along both sides of the road, including several terraces, as well as detached houses. There is also a Methodist Church, a Masonic Hall, a Children's Park, a Rectory and Sunday School, and a post office (Figure 7). This new development removed all trace of the earlier graveyard site, which now lies beneath houses lining Ferrybank road (Figure 8). There is also evidence for land improvement works, with numerous drainage channels now subdividing the Marsh and running along the road that bisects it. A sluice gate is marked to the rear of the properties at Ferrybank.

There are no significant changes by the time of the 1937 revised edition OS six-inch map.



Figure 7 First edition Ordnance Survey 25-inch map, 1907-09



Figure 8 First edition Ordnance Survey 25-inch map, 1907-09, showing site of graveyard

6. AERIAL REVIEW

Arklow Town Marsh appears little changed since the early 20th century Ordnance Survey mapping, with the causeway to Shelton Abbey and the various drainage ditches all visible in the current aerial imagery (Figure 9; as on other available aerial imagery from the 1990s onwards).

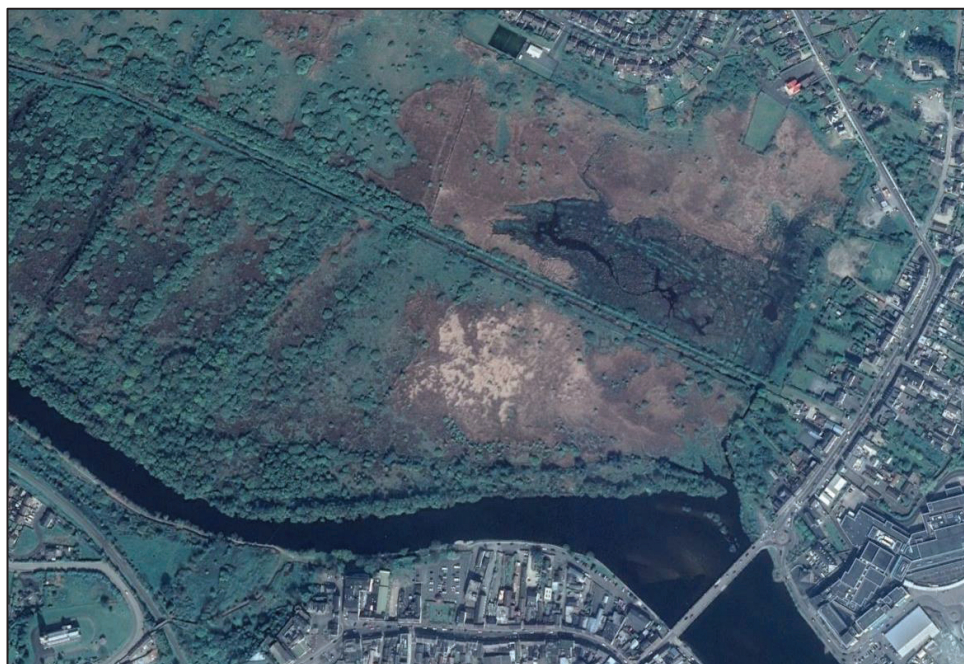


Figure 9 Aerial image showing Arklow Town Marsh (Google Earth 22/04/2019)

7. RESULTS OF MONITORING

Ground investigation works were undertaken between September and October 2019 at the marsh in Arklow town, Co Wicklow. These works were archaeologically monitored under licence to the National Monuments Service and the National Museum of Ireland.

These works were carried out in order to gain information on groundwater levels prior to any dredging works associated with the proposed Flood Relief Scheme taking place.

12 No. window sample boreholes were monitored (Figure 10). Window sampling was carried out using a Dando Terrier/ Tecop Tec 10 percussion drilling rig. The sampling consisted of a 1m long steel tube with a cutting edge and an internal plastic liner being driven into the ground utilising a 50kg weight falling from a height of 500mm (Plate 2).



Plate 2 Window sample borehole in progress

Upon completion, the tube is withdrawn, and the plastic liner removed and sealed for logging and sub sampling by a Geotechnical Engineer. The tube is replaced in the borehole and a subsequent sample can be recovered.

This process was archaeologically observed, however, but due to the enclosed and limited nature of the samples, no archaeological information could be gleaned on site from this practice.

From analysis of the logs (Plate 3), the sequence of strata encountered can be summarised as

- Peat –encountered in all exploratory holes and was present to a maximum depth of 3.00m BGL.
- Cohesive Deposits – encountered beneath and between the peat and were described as brownish grey or dark brown slightly sandy, slightly gravelly slit with occasional rootlets and wood fragments present.
- Granular Deposits – encountered below the base of the cohesive deposits and were bluish grey clayey slightly sandy subrounded to subangular fine to coarse sand with occasional rootlets.



Plate 3 Window Sample 12

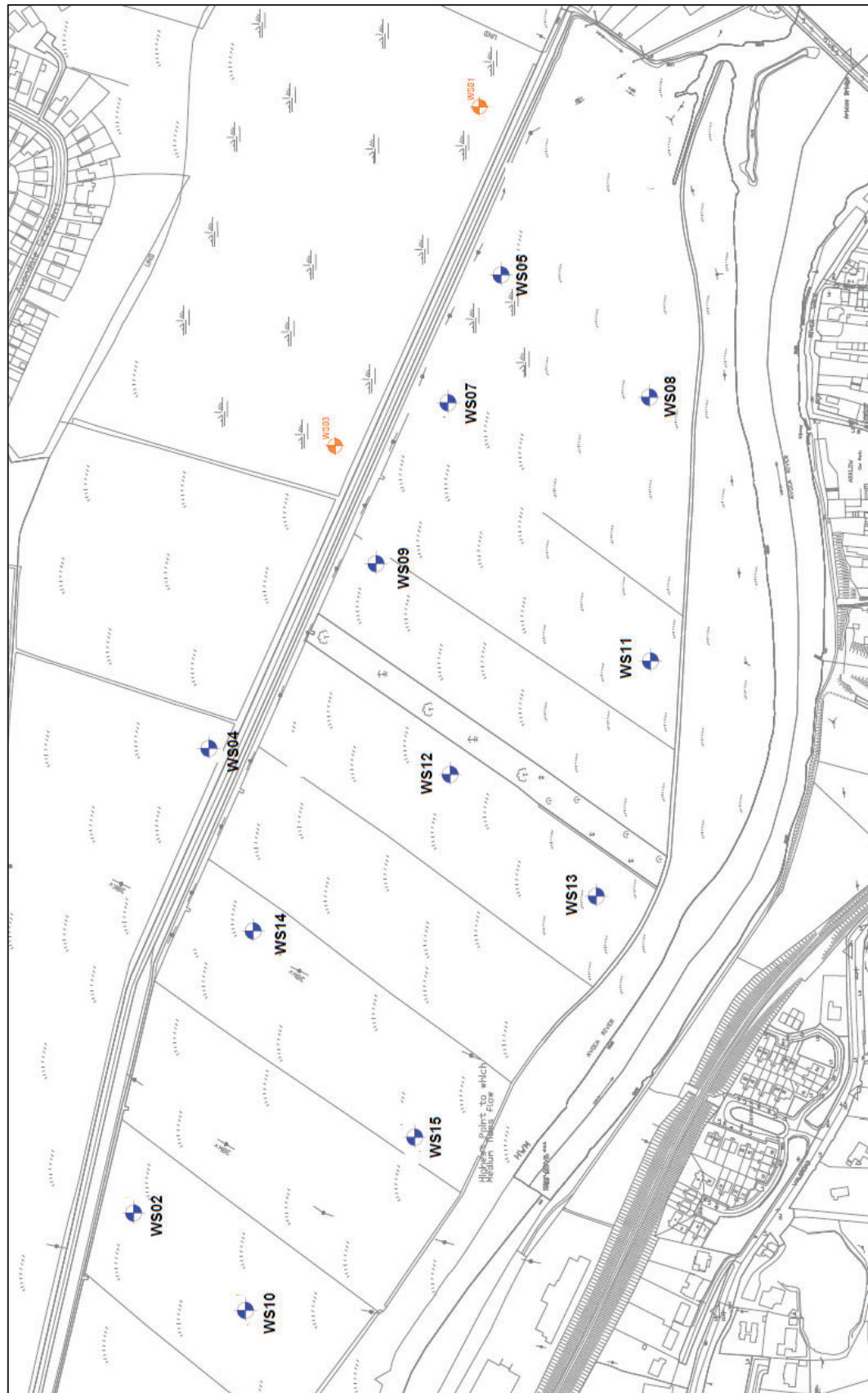


Figure 10 Location of window sample boreholes in blue. Proposed in yellow

Archaeological test excavation (Figure 11) was scheduled to take place in November 2019 along the line of a proposed earthen embankment in the townlands of Ferrybank and Arklow Marsh. As the embankment is partly located within the zone of archaeological potential for the Historic Town of Arklow (WI040-029) and as it lies adjacent and to the west of an area previously recorded as the site of a graveyard (WI040-029008) now occupied by houses, archaeological test excavation was proposed.

Also of archaeological interest, the topographical files from the National Museum of Ireland refers to a mound in Ferrybank townland on the northern bank of the River Avoca where finds of a cist containing an urn and human remains were revealed. This discovery was made in 1939 and appears to be consistent with the findings of a late Bronze Age (1200BC-500BC) burial place.

In addition to this, is the site of the 'Ovoca Brewery' as illustrated on the six-inch 1st edition 1838 OS map. There are a few ruinous structures which could be related to this brewery, however, overall the land where the site was originally located is significantly disturbed due to previous activities.

Test excavations were proposed to inform the flood relief project design as to whether there was a below ground archaeological potential along the line of a proposed embankment in the townlands of Marsh and Ferrybank.

In advance of this occurring a site visit took place to establish the current ground conditions and to highlight any possible health and safety concerns during the testing process. The site visit demonstrated that it was not possible to carry out testing in advance as planned as the area was heavily overgrown and subject to flooding with standing pools of water present. The area in question is also traversed by electricity lines making it unsafe for a mechanical excavator to work.

The following photographs demonstrate the issues such as inaccessibility (Plate 5 and Plate 6), dense vegetation (Plate 7 and Plate 12), flooding and ground conditions (Plate 8 and Plate 9) and electricity lines and poles (Plate 4 and Plate 11) along the route. Plate 10 shows that part of test trench 4 is accessible but given that it is in an area that was previously disturbed and all the other constraints, it was felt that it was better to wait and carry out all the investigation work as a single phase.

Highlighted in red on Figure 11 is the area of inaccessibility, as stated above, this is due to a number of reasons.



Plate 4 TP 15 and 16, close proximity to pylons

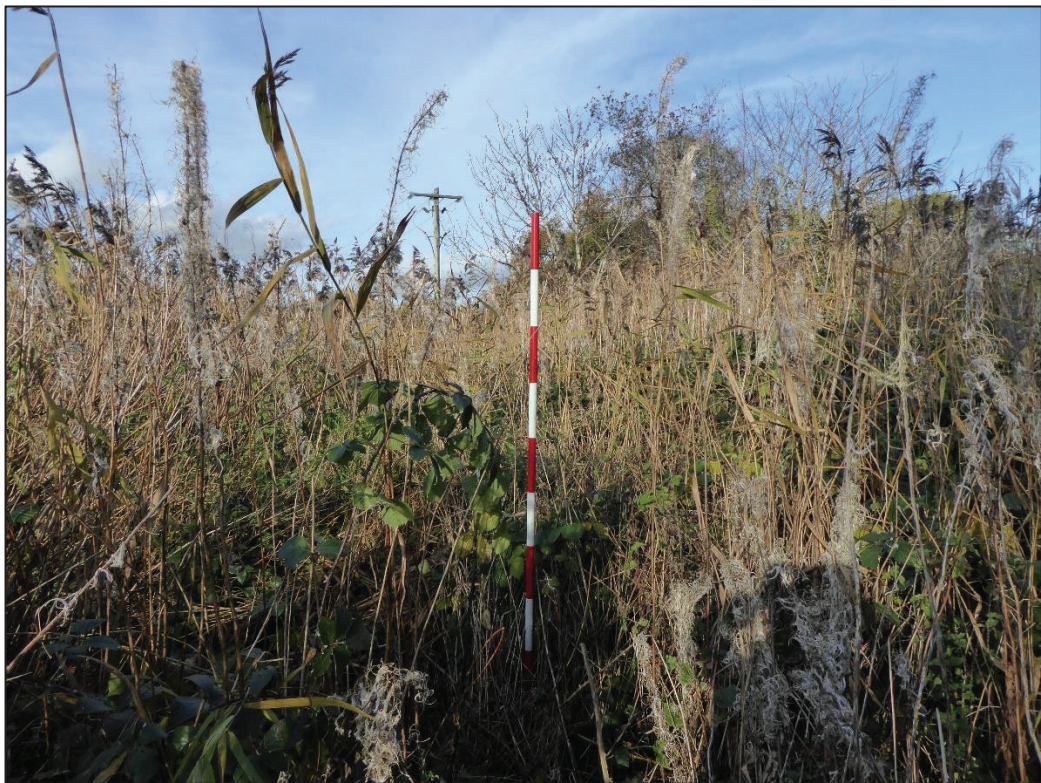


Plate 5 TP 14 Inaccessible for a machine



Plate 6 View towards TP12 and 13 taken from the causeway, currently inaccessible



Plate 7 Raised causeway into the Marsh area



Plate 8 View towards the location T8 taken from the north east



Plate 9 Standing water located at T9 and T10



Plate 10 Location of T4 southeast end



Plate 11 Location of T4 northwest end



Plate 12 Location of T1 in bulrushes

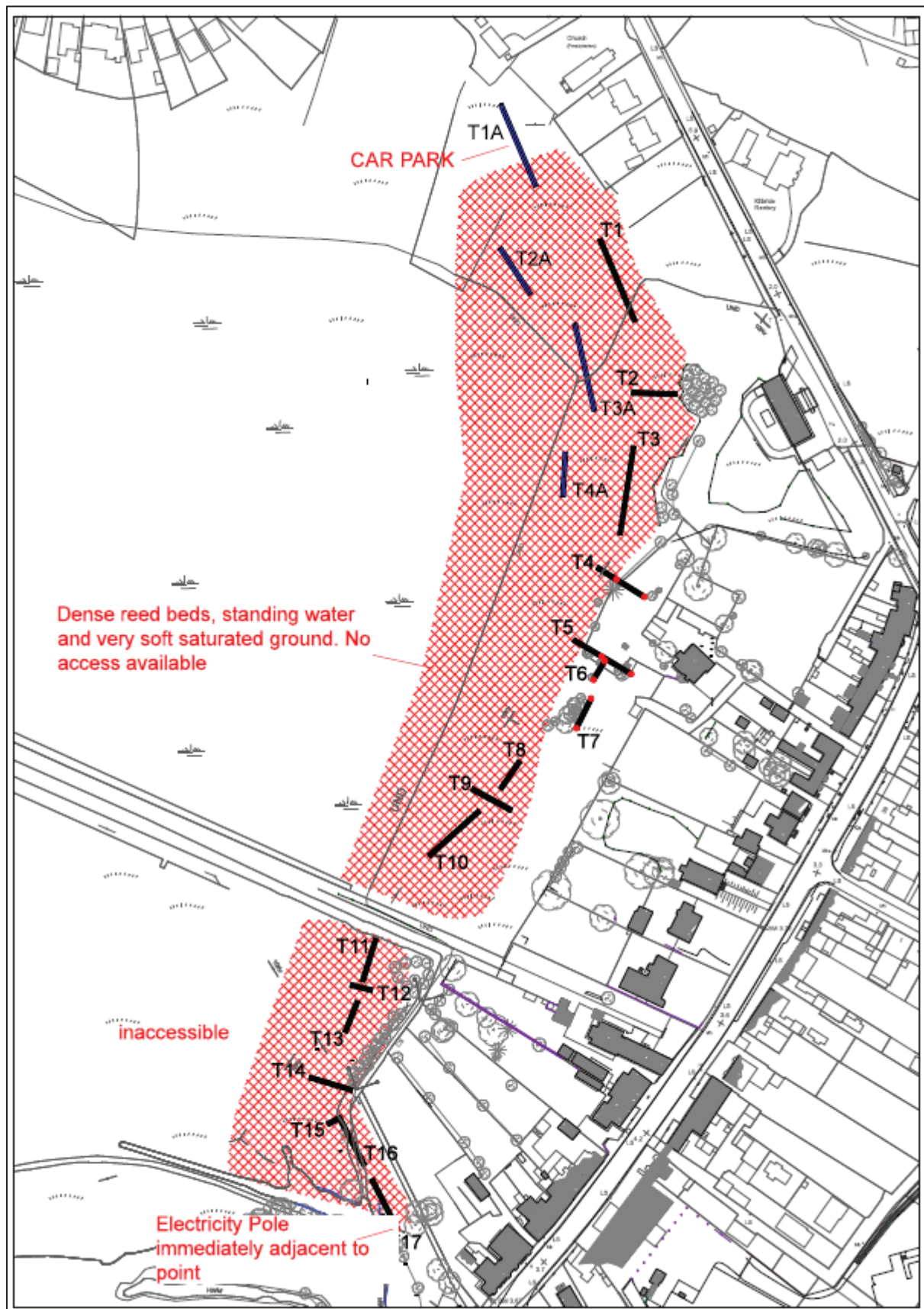


Figure 11 Location of proposed test trenches

8. CONCLUSIONS AND RECOMMENDATIONS

8.1. Development of an Archaeological Strategy

The development of an archaeological strategy will provide a fuller understanding of the below ground remains and provide confidence that an appropriate archaeological risk assessment framework is developed in conjunction with Arklow Flood Relief Scheme.

Due to the constraints previously outlined in this report and to make this an effective process, the assessment strategy will be devised so that it allows a fuller understanding of the below ground archaeological potential of the Arklow Town Marsh to take place at the post planning and pre-construction stage of the proposed development. This strategy will build on the existing information and add to the existing knowledge base in relation to the potential of the area.

From research, field work and monitoring site investigations, it has been established that the area to the south of the causeway presents as the greatest area of archaeological potential, being within the zone of archaeological potential for Arklow Town (WI040-029) and in the environs of the site of a graveyard now built upon (WI040-029008).

Closest to the River Avoca at its southern end, this area has experienced a large degree of disturbance from reclamation practices and the build-up of land, this is shown on the historic mapping as well as the designation and field mapping (Figures 2, 3 and 10). The clearance of this land will allow archaeological investigation to take place. It is anticipated that if features are revealed that they will be deeply buried given the practice of building up the land. It is also anticipated that a design solution can be provided so mitigation measures can be effective. For example, preservation in situ or by design is likely given the minimal excavation required for the creation of the earthen embankment. Equally, preservation by record is also possible in this environment if the Statutory Authorities governing the archaeological licensing procedures require it.

At this point in time, from a practical view point, the land to the south of the causeway, to the rear of the boundary wall associated with properties facing onto the Ferrybank Road is extremely wet, with numerous drainage channels throughout and overgrown with bulrushes has no accessibility for a machine (Plate 5 to 7) which is required in order to undertake the work.

To the north of the causeway, pools of standing water are present along the route and it has been noted at other times of the year while the area may be drier it still is very wet under foot (April 2012, February 2018, September 2019). It was noted during the site inspection that the site of the 19th century brewery (Figure 6) had experienced a significant degree of disturbance in recent years, considerably lowering the potential to reveal sub surface remains.

It is proposed that monitoring of the clearance work and topsoil removal and/or targeted test excavation will take place at the pre-construction phase of the project. It is at this time that the line of the proposed embankment will be clearly defined and accessible as a working corridor. This will ensure that time spent and excavation on the marsh (a proposed Natural Heritage Area pNHA) will be effective while minimising the area of disturbance.

This strategy ensures that there is time and resources in order to assess the area. To successfully undertake this work to the satisfaction of the statutory authorities, it is dependent on an appropriate window of time being provided within the enabling works/ site preparation contract. This will allow an archaeological examination of the lands to be carried out in a safe environment with the wayleave fenced out by the client. This archaeological requirement will be written into the contract documents, so all contractors are aware of the obligation to allow for archaeological work to be undertaken at the earliest stages of the site preparation works.

Monitoring and test excavation, within this process will be timely and targeted, providing an understanding of the stratigraphy and potential to reveal below ground remains throughout the area proposed for the earthen embankment. All future investigations will engage with the work that has already occurred on the site and the existing knowledge base. The archaeological work will take place as part of an integrated design team process.

8.2. General

As a result of the archaeological monitoring of SI works no archaeological features, finds or material were revealed. The stratigraphy of the marsh was broadly established with a maximum depth of 3m BGL (section 7) from the SI works.

Due to physical and natural constraints such as access issues, ground conditions and electricity poles and wires it is proposed to carry out the work as outlined in the above Archaeological Strategy at a time when it is safe to do so and when a working wayleave has been established by the client.

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

9. REFERENCES

- Curtis, E. (ed.) (1932-43) *Calendar of Ormond Deeds*. 6 vols. Dublin.
- Etchingham, C. (1994) "Evidence of Scandinavian settlement in Wicklow," *Wicklow history and society*, ed. K. Hannigan and W. Nolan, Geography Publications, Dublin.
- Gilbert, J.T. (ed.) (1884) *Chartularies of St Mary's Abbey, Dublin*. 2 vols. London.
- Grogan, E., and Kilfeather, A. (1997) *Archaeological Inventory of County Wicklow*, Office of Public Works.
- Gwynn, A. & Hadcock, R.N. (1970) *Medieval Religious Houses: Ireland*. London.
- Kerrigan, P.M. (1995) *Castles and Fortifications in Ireland 1485-1945*. The Collins Press, Cork.
- Leask, H.G. (1951) *Irish Castles and Castellated Houses*. Dundalgan Press, Dundalk.
- MacNeill, C. (ed) (1950) *Calendar of Archbishop Alen's Register c. 1172-1534*. Dublin.
- O'Flanagan, Rev. M. (Compiler) (1928) *Letters containing information relative to the antiquities of county Wicklow collected during the progress of the Ordnance Survey in 1838*. Typescript. Bray.
- Oftedal, M. (1976) 'Scandinavian place names in Ireland', in Almqvist, B. and Greene, D. (eds) *Proceedings of the seventh Viking Congress*, 125-33. Royal Irish Academy, Dublin.
- Orpen, G.H. (1911-20) *Ireland Under the Normans*. 4 vol. Oxford.
- Price, L. (1967) *The placenames of County Wicklow*, vol. 7, *The baronies of Newcastle and Arklow*, Dublin Institute for Advanced Studies.
- Rees, J. (2013) 'The forgotten 'fishery' of Arklow', in *History Ireland*, Vo. 21, No. 1, pp.30-33.
- Ronan, M. V. (1928) "The ancient churches of the deanery of Wicklow," *JRSAI* **58**, 132–55.
- Scott, A.B. & Martin, F.X. (eds.) (1978) *Expugnatio Hibernica: the conquest of Ireland by Giraldus Cambrensis*. Dublin.
- Simpson, L. (1994) "Anglo-Norman settlement in Ui Briuin Cualann, 1169–1350," in *Wicklow: history and society*, ed. K. Hannigan and W. Nolan, Geography Publications, Dublin.
- Smyth, A. P. (1994) "Kings, Saints and Sagas," in *Wicklow: history and society*, ed. K. Hannigan and W. Nolan, Geography Publications, Dublin

APPENDIX 1 NATIONAL MONUMENTS LEGISLATION 1930-2004

All archaeological sites have the full protection of the national monuments legislation (Principal Act 1930; Amendments 1954, 1987, 1994 and 2004).

In the 1987 Amendment of Section 2 of the Principal Act (1930), the definition of a national monument is specified as:

any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections,

any artificial cave, stone or natural product, whether forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position,

any, or any part of any, prehistoric or ancient

(i) tomb, grave or burial deposit, or

(ii) ritual, industrial or habitation site,

and

any place comprising the remains or traces of any such building, structure or erection, any cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site...

Under Section 14 of the Principal Act (1930):

It shall be unlawful...

to demolish or remove wholly or in part or to disfigure, deface, alter, or in any manner injure or interfere with any such national monument without or otherwise than in accordance with the consent hereinafter mentioned (a licence issued by the Office of Public Works National Monuments Branch),

or

to excavate, dig, plough or otherwise disturb the ground within, around, or in the proximity to any such national monument without or otherwise than in accordance...

Under Amendment to Section 23 of the Principal Act (1930), a person who finds an archaeological object shall, within four days after the finding, make a report of it to a member of the Garda Síochána...or the Director of the National Museum...

The latter is of relevance to any finds made during a watching brief.

In the 1994 Amendment of Section 12 of the Principal Act (1930), all of the sites and ‘places’ recorded by the Sites and Monuments Record of the Office of Public Works are provided with a new status in law. This new status provides a level of protection to the listed sites that is equivalent to that accorded to ‘registered’ sites [Section 8(1), National Monuments Amendment Act 1954] as follows:

The Commissioners shall establish and maintain a record of monuments and places where they believe there are monuments and the record shall be comprised of a list of monuments and such places and a map or maps showing each monument and such place in respect of each county in the State.

The Commissioners shall cause to be exhibited in a prescribed manner in each county the list and map or maps of the county drawn up and publish in a prescribed manner information about when and where the lists and maps may be consulted.

In addition, when the owner or occupier (not being the Commissioners) of a monument or place which has been recorded, or any person proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such monument or place, he shall give notice in writing of his proposal to carry out the work to the Commissioners and shall not, except in the case of urgent necessity and with the consent of the Commissioners, commence the work for a period of two months after having given the notice.

The National Monuments Amendment Act 2004

The National Monuments Amendment Act enacted in 2004 provides clarification in relation to the division of responsibilities between the Minister of Environment, Heritage and Local Government, Finance and Arts, Sports and Tourism together with the Commissioners of Public Works. The Minister of Environment, Heritage and Local Government will issue directions relating to archaeological works and will be advised by the National Monuments Section and the National Museum of Ireland. The Act gives discretion to the Minister of Environment, Heritage and Local Government to grant consent or issue directions in relation to road developments (Section 49 and 51) approved by An Bord Pleanála and/or in relation to the discovery of National Monuments

14A. (1) The consent of the Minister under section 14 of this Act and any further consent or licence under any other provision of the National Monuments Acts 1930 to 2004 shall not be required where the works involved are connected with an approved road development.

(2) Any works of an archaeological nature that are carried out in respect of an approved road development shall be carried out in accordance with the directions of the Minister, which directions shall be issued following consultation by the minister with the Director of the National Museum of Ireland.

Subsection 14A (4) Where a national monument has been discovered to which subsection (3) of this section relates, then

- (a) the road authority carrying out the road development shall report the discovery to the Minister
- (b) subject to subsection (7) of this section, and pending any directions by the minister under paragraph

(d) of this subsection, no works which would interfere with the monument shall be carried out, except works urgently required to secure its preservation carried out in accordance with such measures as may be specified by the Minister

The Minister will consult with the Director of the National Museum of Ireland for a period not longer than 14 days before issuing further directions in relation to the national monument.

The Minister will not be restricted to archaeological considerations alone, but will also consider the wider public interest.

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