

N8 Rathcormac/Fermoy Bypass Scheme
Archaeological Services Contract
Phase 2 – Resolution



**Final Report on Archaeological Excavation of
Fermoy 1**

Townland: Fermoy, Co. Cork

Licence no.: 03E1465

Archaeological Director: Deirdre Murphy

April 2006



Cork County Council



Archaeological Consultancy
Services Limited

PROJECT DETAILS

Project	N8 Rathcormac- Fermoy Bypass Scheme
Site Name	Fermoy 1
Licence No.	03E1465
Archaeologist	Deirdre Murphy
Townland	Fermoy
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NON TECHNICAL SUMMARY

The proposed N8 Rathcormac Fermoy By-Pass is approximately 17.5km in length and will extend from the northern end of the new N8 Glanmire-Watergrasshill Bypass in the townland of Meenane, passing to the west of Rathcormac and to the east of Fermoy and onto the northern tie-in point on the existing N8 Cork-Dublin Road at Moorepark West.

A programme of advance archaeological investigation (phase one) was undertaken in May 2002, September 2002 and July 2003 under licences 02E0713-02E0720 issued by Duchas The Heritage Service to Donald Murphy and Deirdre Murphy. A total of forty-four sites were identified during this phase of works and they were subsequently resolved in 2003 during the second phase of the project (resolution phase). Fermoy 1 was identified during phase 1 as the remains of a *fulacht fiadh*. Archaeological resolution of this site commenced on the 9th October 2003 and was carried out by Deirdre Murphy under licence number 03E1465. Resolution of the site revealed a trough and associated deposits. Radiocarbon analysis placed this site in the Late Bronze Age.

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1. INTRODUCTION

1.1 Site Location

This report details the results of the archaeological excavation of a site on the N8 Rathcormac-Fermoy Bypass at Fermoy 1, County Cork (Ordnance Survey six-inch sheet 35, 853mm from the west margin and 417mm from the south margin; National Grid Co-ordinates 18228, 098526 Figures 1–5). This site is located south of the River Blackwater with Fermoy town to the west. The proposed route affects the western half of the field. At the time of excavation the land was under grass approximately 0.40m in height and the field was marshy.

1.2 Scope of the Project

The purpose of the Archaeological Services Project was to conduct Archaeological Site Investigations within the lands made available for the scheme and to assess the nature and extent of any new potential archaeological sites uncovered (Phase 1). This phase of the project was carried out in May 2002, September 2002 and July 2003 under licences 02E0713-02E0720 issued by Duchas, the Heritage Service to Donald Murphy and Deirdre Murphy. The principal aim of this phase of the project was to test the known sites, including sites of potential identified in the EIS and through aerial photography. It sought to test for any previously unknown sites that may by virtue of their size or complexity lead to significant delays and costs if revealed during construction works. This phase of the project also tried to assess the archaeological risk across the scheme by examining the volume, range, complexity and distribution of archaeology identified during testing.

The second phase of the project involved the resolution of all archaeological sites identified within the proposed road corridor prior to commencement of the construction of the bypass (Phase 2). The aim of this phase of works was to clear the entire route of archaeology in order to avoid delays and costs during construction works. This phase of the project was carried out from June-October 2003 and excavations were conducted by five licensed directors under the management of a Senior Archaeologist, Deirdre Murphy. In total forty-four sites were excavated during this phase of works and all excavations were carried out under separate licences issued by The Department of the Environment, Heritage and Local Government.

Following completion of fieldwork a programme of post-excavation analysis was necessary as reports on the archaeological findings must be published. A dissemination strategy also forms a crucial part of this phase of the project. It is proposed that all final reports will be submitted to the relevant authorities by March 2005 and that publication and public lectures/seminars will follow thereafter.

Both the format and timescale for publication and seminars will be decided in consultation with the Project Archaeologist.

This Archaeological Services Project was carried out on behalf of Cork County Council, National Roads Design Office, Richmond, Glanmire, Co. Cork. This project was funded by the Irish Government under the National Development Plan, 2000-2006. The total archaeological cost was administered by the National Roads Authority through Cork County Council as part of the Authority's commitment to protecting our cultural heritage.

1.3 Circumstances of Discovery

Phase 1 of this project was carried out in May 2002, September 2002 and July 2003 under licences 02E0713-02E0720 issued by Duchas, The Heritage Service to Donald Murphy and Deirdre Murphy. The principal aims of this phase of the project were to test the known sites, including sites of potential identified in the EIS and through aerial photography and also to test for any previously unknown sites. Archaeological testing of this field was conducted on 11th June 2002 and involved the excavation of eleven trenches, the centreline and ten offsets. The trenches were excavated by machine equipped with a grading bucket and they had an average width of 2m, depth of 0.35-0.75m and they varied in length from 10m to 128m. The remains of a *fulacht fiadh* and associated spreads were identified near the southern end of the field. Topsoil stripping around the *fulacht fiadh* was recommended with full excavation of all features exposed.

1.4 Date and Duration of Excavation Works

Topsoil stripping of the site took place between 7th-8th October 2003. Excavation of the site commenced 9th October 2003 and took seven days to complete, finishing on 17th October 2003.

1.5 Size and Composition of the Excavation Team

The excavation team consisted of four individuals including one licenced director, two assistants and one operative.

2. RECEIVING ENVIRONMENT

2.1 Detailed Overview of the receiving environment

2.1.1 Topographic

The topography in this region can be characterised by a series of east west ridgelines with river corridors and agricultural plains in the valleys. The major towns and smaller settlements are predominately located within the valleys and often at important river crossings.

Devonian sandstones and siltstones alternate along the route, underlying Carboniferous shales and limestones. The upland areas contain the anticlinal ridges of the Devonian sandstones and siltstones, with the synclinal valleys consisting of Carboniferous shales and limestones. The oldest rocks in Cork are Devonian (approximately 355-410 million years) and are mainly red and green sandstone, siltstones and mudstones. Carboniferous Limestone is the most abundant rock type in Ireland and dates from 290-355 million years. It varies in texture, colour and components from fine calcite mud to calcite oolites or coarse corals and shells and from compact calcareous blue limestone to hard blue-grey siliceous variety to black softer shaly beds of the 'Calp' formation.

One of these Carboniferous valleys, known in geological terms as the Cork Syncline, extends westwards from the coast just south of Youghal, to include Cork city and harbour and the lower Lee Valley. A parallel ridge, known as the Watergrasshill Anticline, lies immediately north of the valley, and is comprised mainly of the Ballytrasna Formation, a sub-type of Devonian Old Red Sandstone consisting mainly of purple mudstone with some sandstone. To the north of the Watergrasshill Anticline lies the Bride River valley, referred in geological terminology as the Tallow Syncline. Immediately north of this is another low ridge, which has no specific name but is an eastwards extension of the Nagles Mountains which rise to a maximum height of 428m OD some 10km to the west. Proceeding northwards ground level falls again into the Blackwater Valley, which is geologically divided into the Lismore Syncline, to the east of Fermoy, and the Fermoy Syncline to the west. North of the Blackwater ground level rises again to the Knockmealdown Anticline, (Sleeman & McDonnell, 1995). Specifically, the bedrock at this site at Fermoy 1 is Upper Devonian gyleen formation which is sandstone with mudstone and siltstone.

The proposed road scheme with which this report is concerned begins immediately north of the village of Watergrasshill, on the northern flank of the Watergrasshill Anticline and continues northwards to the Fermoy Syncline, ending immediately north of Fermoy town.

The bedrock geology of the area is overlain by more recent Quaternary sediments mostly deposited by melting glaciers and ice sheets during the various alternating warm and cold phases in the period from 1.6 million years ago to 10,000 years ago. Quaternary deposits generally range from 3-4m in thickness but deposits of up to 60m are known in the Blackwater valley. The nature of these sediments depends on the origin of the ice sheets, which deposited them. In the Blackwater valley the sediments are dominated by sandstone derived from hills to the north. Similarly, in the upper reaches of the Bride valley, including the area in question here, the visible soils and stones are almost invariably derived from sandstone, (Sleeman & McDonnell, 1995).

Brown Podzolic is the main soil type found in County Cork and is especially suitable for pasture. 71% (532'500ha.) of the total land area was farmed in County Cork with the greatest use being pasture along with hay and silage. The landscape of the N8 bypass route may be characterised as rolling pastoral farmland. Soil cover along the route may be characterised as glacial deposits, with some alluvial deposits in the river valleys and occasional pockets of peat in low-lying areas. Generally, the upland areas comprise of a 1.5m-3m cover of boulder clay over sandstone and siltstone bedrock. The lower lying valleys comprise of 7-8m of alluvial sands, silts, clays and limited glacial deposits. Geotechnical investigations along the Bride River, near Rathcormac, indicated the presence of medium dense gravels and sands, and stiff gravely clays, of glacial origin, to 18m in depth. High clay banks, possibly formed by boulder clay, bound the alluvial material along the valley floor. Investigations in the Blackwater River valley indicate the presence of soft clays to around 4m in depth, overlying loose sandy gravels to around 7m in depth and very dense gravels, (Hanley, 2003).

The landscape of County Cork has a series of valleys and ridges running east to west with the main valleys being those of the rivers Lee, Blackwater, Bandon and Bride. Cork has more rivers than any county in Ireland with approximately 1,200km of main channel rivers and 2,000km of streams and drains. The Lee River Valley contains the only remaining area of alluvial woodland in Ireland as well as being one of only a few examples in Western Europe with native broad-leaved woodlands being associated with the steeper slopes of its river valleys. There are seven river/stream crossings in all, the River Flesk flows south-north into the River Bride and the River Funshion north-south into the River

Blackwater. The water table in lowland areas is understood to be generally within 15m of the ground surface. The water table near the Bride and Blackwater Rivers is thought to be at depths of 3.5-6m and 3-4m respectively, (Hanley 2003). The site at Fermoy 1 is serviced by a small stream at the west of the site and the Blackwater River to its north.

2.1.2 Historic

by Bryn Coldrick

GENERAL HISTORICAL BACKGROUND

In the centuries prior to the coming of the Anglo-Normans all of East Cork, from the Nagle Mountains to Cork Harbour and eastwards to Youghal and Lismore was under the control of the descendants of the Uí Líatháin. A branch of the Corcu Lóegde, former overlords of Munster, the Uí Líatháin retained their territories when the Corcu Lóegde were gradually pushed westwards by the rising Eoghanachta from the seventh century on (O Corrain 1972, 3-7). The Uí Líatháin lands were divided among a number of septs, descendants of the six sons of Eochu Líatháin (Ó Buachalla 1939, 28). The area around the upper reaches of the Bride Valley (the present Fermoy-Rathcormac-Castlelyons-Watergrasshill area) was ruled by the Uí Anmchadha sept, probably based at Castlelyons (op. cit., 29). One of their number, Muircheartach Mac Anmcha, styled Chief of Uí Líatháin, is recorded by the annals as one of the Southern Irish Chieftains at Clontarf in 1014 (op. cit., 28). During the 11th and 12th centuries Uí Líatháin power was weakened under pressure from neighbouring septs, the Déise from the northeast, and the Uí Eachach (ancestors of the O Mahonys) and McCarthys from the west, as well as by internal strife among the septs (op. cit., 29).

In the wake of the Anglo-Norman invasion of 1169, King Henry II conferred the kingdom of Cork by charter on two of his magnates, Robert Fitzstephen and Milo de Cogan. Because of the strength of the Gaelic inhabitants in this part of the country, however, the new Anglo-Norman proprietors were cautious in actually claiming their grants and preferred to use diplomacy instead of force to establish themselves in their holdings. Fitzstephen offered the Irish chieftains twenty-four cantreds of land at an annual rent on condition that he and de Cogan be permitted to divide the remaining seven cantreds in the vicinity of Cork City between themselves. The three eastern cantreds Fitzstephen retained included the traditional property of the O'Lehane clan, i.e. the area under study. Like their Gaelic predecessors, however, the new arrivals were prone to infighting, which, coupled with attacks from the native Irish, made it more difficult to secure their newly-acquired lands. When Milo de Cogan and

his son-in-law Randolph Fitzgerald turned on Robert Fitzstephen, Fitzstephen sought the help of his nephew in Wales, Philip de Barry. In return for military assistance, Fitzstephen granted de Barry his three cantreds in East Cork, including the O'Lehane lands. This grant was later confirmed on William de Barry by King John and the Barrys remained a powerful influence in the area until well into the eighteenth century (Dennehy & Coleman 1923; O'Riordáin 1976).

Philip de Barry built a strong castle at Carrigtohill that later became known as Barryscourt Castle. In the fifteenth and sixteenth centuries, the Barrys consolidated their holdings by building additional castles at Walterstown, Ballymacshanero and East Ballinakill. During the Desmond Revolt in the sixteenth century, when Barry took arms to fight alongside his Anglo-Irish compatriot, Barryscourt was besieged by Captain (later Sir) Walter Raleigh and Barry burned it rather than surrender. Despite their involvement in the rebellion, however, the Barrys managed to escape forfeiture and were pardoned. In the early 17th century, they had converted to Protestantism and had become loyal servants of the English Crown. In 1593, Hugh O'Neill punished the Barrys for this perceived treason by laying waste their lands (Dennehy & Coleman 1923). O'Neill burned and ravaged almost all of Barrymore including Kildinan, Rathcormac, Mondaniel, Lisnagar, Kilshannig and Curraghprevin (Barry 1994).

In the seventeenth-century, however, the family was rewarded for their choice of loyalties when, in the aftermath of the 1641 Rebellion as the majority of Catholic landowners on the island were being dispossessed, the Barrys actually increased their holdings in South Munster (Dennehy & Coleman 1923). At one time, the Barry holdings covered approximately one-third of modern County Cork and they were masters of castles at Buttevant, Castlelyons, Carrigtohill and Timoleague. They also gave their name to two Cork baronies—Barrymore and Barryroe (Windele 1897).

The study area mainly falls into two baronies, those of Barrymore and Condons and Clangibbon. Barrymore is a large barony of twenty-nine parishes and comprises more than 150,000 acres. The landscape is undulating and the soil is of average fertility. By the time Power was writing in the early twentieth-century, Irish was hardly spoken by the locals here and many ancient traditions had disappeared. Archaeological monuments were also disappearing by this time and traditional thatched cottages were being replaced by modern two-storey slated houses (Power 1917).

Condons formed part of the ancient kingdom of *Fearna Maigh Féine* (Fermoy) of which the O'Keeffes were chieftains until the coming of the Anglo-Normans. It eventually became the property of the Condons (or de Caunteton) and who for a long period held lands and castles in the area. Clangibbon was anciently called *Ivela Bane* or 'the white (or fair) territory'. It may also mean 'the White Knight's country' where the knight in question was Maurice, head of the Gibbon sept of the Fitzgerald family. Following the Battle of Hallidon Hill, which took place near Berwick in England on 15th July 1333, King Edward III knighted three of the Fitzgeralds for their bravery. They became known as the Black Knight (who was the ancestor of the Knight of Glin), the Green Knight (ancestor of the Knight of Kerry) and the White Knight. The earl of Desmond subsequently made these knighthoods transmissible through the male line (Anonymous 1892). In response, Henry Pyne of Mogeely wrote to the earl of Essex suggesting that one thousand Irish troops be garrisoned against the White Knight in the castles of Ballyroberts, Castletyons and Rathcormac (Barry 1994).

TOWNS AND VILLAGES

Castletyons

Castletyons is a village located two miles (3.2km) east of Rathcormac. It derives its name from *Caisleán Uí Liatháin* and was the principal seat and royal residence of the Uí Liatháin (O'Lehane) clan whose territory covered the whole of East Cork until the coming of the Anglo-Normans in the late twelfth century (Barry 1994). Castletyons was included in the three cantreds acquired by Robert Fitzstephen in the aftermath of the invasion, and in 1204 a castle was built here by William de Barry on the site of the existing ruined castle. The castle was also said to have been built close to the site of the ancient O'Lehane fortress. In 1307, a Carmelite Friary was established in Castletyons by John de Barry and before the close of the fourteenth century, a church was built dedicated to St. Nicholas (O'Riordáin 1976; Lewis 1837).

In 1568, the monastery and its properties (including 11½ acres) were granted to Viscount Buttevant. It subsequently passed to Richard Boyle, Earl of Cork, who gave it to his daughter in 1621 as a wedding present ("to buy her gloves and pins" as Boyle put it) on her marriage to David Barry, the first Earl Barrymore (O'Riordáin 1976; Lewis 1837). Soon after his marriage, sometime around 1636, David Barry extended and altered the existing castle at Castletyons. This was to be the principal seat of the senior branch of the Barry family and, therefore, the capital of Barrymore until the second half of the eighteenth century (Barry 1994). The main historical event in Castletyons' history was the

Battle of Castlelyons which took place in 1645 when Lord Broghill won a decisive victory over the Irish under Gen. Purcell, (Lewis 1837).

The Barrymore earls remained in Castlelyons until 22nd July 1771 when their castle was destroyed by a fire that was accidentally started by workers repairing the roof. The house was never restored and its remains were being used as a quarry when visited by Windele in 1849 (Windele 1897). Windele described the Castlelyons district in quite bleak terms: “the country presented only a picture most eloquently speaking of a ruined and extirpated tenantry, lands depopulated and houses ruthlessly flung down by a pauperised gentry”, (Windele 1898).

Almost a century later, Samuel Lewis described Castlelyons as a market town and a parish partly in the barony of Condons and Clangibbon but chiefly in that of Barrymore. By this time, the total population of the parish was 5,647 while the village comprised 116 houses occupied by 689 people. Castlelyons contained premises for woollen manufacture, a dye house, corn stores and flour mills etc. Of the 12,326 acres in the parish as a whole, three-quarters was arable and the rest pasture. Many recent improvements had taken place in the sphere of agriculture especially in cattle breeding. There was no waste, very little bog and abundant limestone for building, road repair and burning for fertiliser (Lewis 1837).

Fermoy

The name Fermoy has been applied to kingdom, parish, village and town. Originally, the kingdom or territory of Fermoy was known as *Fearna Maigh Féine* which has been translated as ‘the men of the grassy plain’. The ancient kingdom of Fermoy comprised all of Northeast Cork from Mallow and Doneraile to the modern County Waterford border (O’Búachalla 1965). One account concerning the origin of the territory of Fermoy relates to Cormac MacAirt, the legendary third-century High King of Ireland. When Cormac decided that he was not receiving sufficient tribute from the kingdoms of Munster, he decided to lead an army against them but was fiercely resisted. In response to Cormac’s use of a Scottish druid who was brought to Cork to cast spells against the Munstermen, the king of Munster, Fiachaidh Muilleathan, travelled to Valencia Island to enlist the help of the renowned druid Magh Ruith. In return for his services, Magh Ruith demanded certain lands, including what became known as *Fearna Maigh Féine*. The druid was granted his request and Cormac’s army was eventually forced to return to Tara in disarray (O’Murchú 1975).

In the seventh century AD Fermoy was ruled by King Cuanna, a descendant of Magh Ruith who was famed for his hospitality. The territory was also known as *Dubhagan* from which its chieftains eventually came to take the surname O'Duggan (Anonymous 1892). After the decline of the O'Duggans, Fermoy (or *Caoilli* as it was also known) came under the control of the O'Keeffes, kings of Glanworth and members of the powerful Munster dynasty, the Eoghanacht (O'Murchú 1975).

Bunyan has written that the territory of Fermoy occupied “one of the agricultural districts in Ireland” and comprised the area between the Galtee Mountains and Ballyhoura Hills to the north and the Nagle Mountains to the south and was drained by the River Blackwater and its tributaries, the Awbeg, Funcheon and Araglin rivers. After the invasion of 1169–70, territory was granted to the Anglo-Norman family of le Fleming. Later, East and Northeast Fermoy fell to the Condons and Fitzgibbons forming the barony of Condons and Clangibbon while West Fermoy in the thirteenth century passed by marriage from the Condons to the de Rupes (or Roche) family to form the barony of Fermoy. The Roches and Condons forced the O'Keeffes westwards up the Blackwater valley and broke up the traditional Gaelic land divisions or *tuatha* (Bunyan 1983; O'Murchú 1975; Anonymous 1892).

In the early seventh century, a monastery is said to have been founded in the kingdom of Fermoy by St. Finnhua (or Findchu). Under his successors, this had become “a celebrated educational establishment”. The first actual settlement at Fermoy itself began in 1170 when a Cistercian Abbey known as *De Castro Die* was founded here. It has been suggested by some writers that this abbey was established by the Roches but this has been disputed by others who point out that the Roche family did not arrive in Cork until around AD1200 (Windele 1897). Although they did indeed become patrons of the abbey, the Roches could not, therefore, have founded it. Others have written that the abbey was established by the previous Anglo-Norman proprietors, the Flemings (Anonymous 1900). Fermoy Abbey was actually built by Domhnaill O'Brien, King of Munster, and was the fourth Cistercian monastery to be established in County Cork (O'Sullivan 1946; Gwynn & Hadcock 1988).

Fermoy Abbey was located on the south bank of the River Blackwater between the river and Fermoy's main east-west street and was initially populated with monks from the monastery of *De Surio* in Inishlounaght, south County Tipperary. After 1228, the monks came from Furness in Lancashire. The abbey features in some important episodes in the history of the Cistercian order in Ireland. For example, in 1227 the abbot of Fermoy was expelled for his part in the ‘conspiracy of Mellifont’ and in 1229–30 the abbey became the focus of a violent rebellion against the general

chapter. In 1230, the abbot of Fermoy, along with a monk from Inishlounaght and certain others, were murdered, probably by the native Irish who were the previous owners of the monastic lands. (O'Sullivan 1946; Gwynn & Hadcock 1988). The Book of Fermoy was also in all likelihood written at this abbey (Windele 1897).

After violent beginnings, much of the abbey's remaining history seems to have been equally unfortunate. A valuation of 1302–6 found that the abbey was so badly in debt that the monks were unable to feed themselves and in 1467, the abbot appealed to the pope that his abbey was so poverty-stricken that it was unable to offer any hospitality to visitors. Furthermore, wars and other disasters meant that buildings in urgent need of repair could not be maintained (Gwynn & Hadcock 1988).

The abbey in Fermoy was eventually suppressed by the Crown in 1560 and the monks were scattered. The abbey church had acted as Fermoy's parish church since time immemorial which meant that from 1560 until work began on the Church of Ireland church in 1802, the parish of Fermoy was "derelict" (Abbot 1928). According to Brunicardi, an inquisition in 1540–41 had found that Fermoy Abbey possessed 120 acres of arable land, sixty acres pasture, forty acres of woodland as well as a watermill and a ferry. It also owned property in Johnstown and other townlands (Brunicardi 1975). Gwynn & Hadcock wrote that the inquisition heard that the abbey buildings occupied a 1½ acre site and that its overall possessions included 1,040 acres of land, two castles, a watermill and the rectories of Fermoy and Dunmahon. Under normal circumstances, this property would have been worth £26 but it was entered as a mere fifty-eight shillings because of the ravages of war (Gwynn & Hadcock 1988).

In 1570, the property of Fermoy Abbey was granted to Tibold Roche, son of Viscount Roche, for forty years. In 1591, the site of the abbey (then comprising three acres) along with 550 acres of its land were granted to Sir Richard Grenville (Gwynn & Hadcock 1988). Unfortunately, Sir Richard never had the opportunity to enjoy his lands in Fermoy as his flagship, *The Revenge*, was attacked by the Spanish and he was mortally wounded. His Fermoy grant was transferred to his son instead (O'Sullivan 1946). In 1624, the abbey and its holdings came into the possession of Richard Boyle, the first earl of Cork, who passed it down to his son Robert who is famous for discovering the scientific formula known as Boyle's Law. In 1705, the lands were sold to William Cockerell and then in 1724 they came into the hands of William Forward whose widow sold them to John Anderson in 1791 (Bunyan 1983).

From an early period, a small hamlet had existed around the abbey. This hamlet was located on a ford over the River Blackwater and the main road south from Dublin had always crossed at this point. Throughout its history, the abbey had operated a ferry service across the river but in 1626, Richard Boyle, Earl of Cork, erected a wooden bridge at a cost of £500. When this new bridge was swept away by a severe flood on 28th September 1628, Boyle left a bequest for the construction of a new stone bridge. When Lord Castlehaven left Licklash in April 1645, he passed over what he described as “the ford of Fermoy” which suggests that the stone bridge was still under construction at the time (construction was probably interrupted by the wars of the 1640s and 1650s). Bunyan has written that the stone bridge was completed in 1690, the year in which the village of Fermoy was attacked by the Jacobite general, Carroll, and 1,500 Irish troops. The attack was called off, however, when the defenders under Gen. Donep feigned a trumpet charge of arriving reinforcements. The present bridge, described as one of the biggest bridges of its kind in the south of Ireland, was built in 1865 (Bunyan 1983; Waters 1917; Anonymous 1900; Lewis 1837).

After remaining a small hamlet in association with the abbey for centuries, Fermoy eventually become a town during the late eighteenth/early nineteenth century. Its transformation took place under the patronage of the Scotsman, John Anderson Esq., who purchased the estate in 1791. Anderson came from humble beginnings in Pentland, Scotland, and later in life attributed his success to his simple education. When still a young man, he came to Cork Harbour and made his fortune as a shipping merchant. Having bought the Fermoy estate, he decided to build a new town from scratch and Fermoy “suddenly sprang into existence as at the touch of a magician’s wand” (Anonymous 1900; Abbot 1928). When Anderson arrived in Fermoy, the village was no more than “a miserable collection of squalid cabins” and was described as “one of the meanest villages in the county”. At that time, it merely comprised a two-storey inn and two mud-walled cabins. By 1809, however, Fermoy had become “a prosperous town” with a population of more than four thousand, excluding military personnel (Abbot 1928).

First, Anderson built a good hotel to accommodate the many travellers who had been making their way through the village for centuries. Then, he built a few good houses, provided a square and repaired the seventeenth-century bridge. The main catalyst in Fermoy’s development came in the closing years of the eighteenth century when, as Britain geared up for a war with revolutionary France, the Dublin government were considering establishing new military bases in the south of Ireland. When John Anderson became aware of this, he seized what was a golden opportunity to

develop his fledgling town and approached the government with the offer of a free site for a barracks, temporary facilities while these were under construction, and the promise of a town which would meet the needs of a large garrison. The government for their part recognised the strategic advantages of a major barracks in Fermoy as it was located on several major roads and commanded an important pass on the River Blackwater (Abbot 1928).

The first troops arrived in Fermoy in 1797 and within three years, the East (or Old) Barracks was built on the north side of the river (Abbot 1928). After being without a parish church since the mid-sixteenth century, Anderson then nominated his close friend Rev. William Adair as curate of Fermoy and they applied to the Board of First Fruits for financial assistance to build a new church to replace the abbey church which had been in ruins since the Dissolution. The board granted £500, Anderson himself donated £3000 and additional funds came from the parish. Early in 1804, work began to remove all remaining traces of the original abbey and the new church was completed by 1809. Much of the remaining town was planned around this building (Abbot 1928). Unfortunately, however, there is no longer any trace of Fermoy Abbey and only its memory is preserved in the street name Abbey Street (Windele 1897).

A few years later, a second barracks was in place and became known as the West (or New) Barracks (Abbot 1928). In order to cater for the fashionable taste of resident officers, Anderson provided more good houses and a theatre (though this closed after just a few years). He then invited well-off families to come and settle in Fermoy and built his own handsome residence. Still a keen businessman, Anderson then set up a bank (though this establishment was also short-lived) and founded the first mail coach company in Ireland which ran between Dublin and Cork. He also established a school and an agricultural society to promote good agricultural practices in the area. Local historians seem to be united in their respect for the Scotsman who “left behind him, in the town of Fermoy, a noble monument to what can be achieved by a man possessed of energy and talent” (Anonymous 1900). Windele, who visited Fermoy in 1849, wrote that “a century ago” (i.e. the mid-eighteenth century), Fermoy was hardly worth mentioning but that by 1849, it was in a position to “nearly challenge the place of the first town in the county”. He described the thirteen-arch bridge over the Blackwater as “half modern, half antique” with the eastern portion being the older. Set in “one of the most fertile and picturesque districts in the county ... nothing can be happier than the situation of Fermoy, seated on the most romantic of Irish rivers, within a few miles at either side of high healthy hills” (Windele 1897).

It was not just the town of Fermoy which prospered because of the barracks, the locality also benefited. The presence of 1500–2000 troops in Fermoy at any one time produced a demand for food and fodder for horses. Flour mills, a paper factory, a salt kiln and brewery were established (Bunyan 1983). In the 1830s, the parish of Fermoy contained 8,690 inhabitants with 6,976 of these living in the town itself. The parish comprised 3,319 acres of generally good agricultural land and agricultural practices had been greatly improved as a result of the agricultural society founded by John Anderson. The substratum north of the Blackwater comprised limestone while that on the south side was described by Lewis as “a kind of brown stone”. There was no bog and very little waste. By 1837, the main trade of Fermoy town, which Lewis described as a “grand military depot”, involved corn and butter. However, the town was severely disadvantaged by the lack of water communication as the Blackwater was not navigable in this area (Lewis 1837). There were even plans to provide Fermoy with a canal but this was never realised. Yet it was the loss of the barracks in the early twentieth century that naturally proved to be one of the greatest challenges in Fermoy’s history. The barracks were vacated by the British following Independence and were subsequently destroyed during the ensuing Civil War of 1922–23 (Bunyan 1983).

Rathcormac

Samuel Lewis described early nineteenth-century Rathcormac as a market, post town and parish in the barony of Barrymore (Lewis 1837). Rathcormac, or ‘Cormac’s Rath’, was one of three very large parishes in the barony of Barrymore at almost 14,000 acres, two-thirds of which was mountain (Power 1923). Rathcormac village was burned by O’Neill in revenge for Lord Barrymore’s refusal to fight for the Gaelic cause against Queen Elizabeth. In 1638, James Barry of Lisnagar was granted a charter to hold a Saturday market and two annual fairs here and this may have been the beginnings of Rathcormac town (Barry 1994). In 1682, King Charles II granted Barry a charter for Rathcormac in which it was made a free borough with the right to return two members to the Dublin parliament. This privilege was lost with the Act of Union in 1801 for which compensation to the value of £15,000 was paid to Lord Riversdale of Lisnagar (Windele 1897).

By 1837, the parish contained an overall population of 5,143 while 1,574 of these lived in the town. The parish was made up of 12,984 statute acres, one-sixth of which was mountain and bog. The soil quality varied. The uplands of the parish formed part of the Nagle Mountains, a range of clay-slate with limestone on the lower ground. The town was situated on the mail coach road between Cork and

Dublin and the only manufacture here at this time was in leather. There was one principal street with minor ones diverging from it and there were 244 houses, several of which were built in stone. There were also “several picturesque cottages” at the entrance to the town from Cork. A flour mill which had been established under the charter of Charles II as a manor mill had recently been rebuilt at a cost of £1,500 (Lewis 1837).

The village was visited by Windele during his tour of the area in 1849 and he described Rathcormac as “a pretty little town lying in a fruitful and pleasant valley watered by the River Bride, a clear and gentle river”. Having a resident rather than an absentee landlord allowed Rathcormac to retain “an air of cleanliness and rather comfort” (Windele 1897). Rathcormac was also described by Cox in 1902 as “a pretty village” (Cox 1902).

Watergrasshill

Watergrasshill is said to have received its name because of a stream which flowed from the townland of Bishop’s Island down the entire length of the town’s main street. The stream formed a pool from which horses drank and in which watercress flourished (Power 1917). The village was visited by Windele during his tour of the area in 1849 and his diary was published in the Cork Historical and Archaeological Society Journal in 1897. He described Watergrasshill as “respectably situated” with “excellent and wide” views of the surrounding countryside. It was a village of one street, a few of the houses were two-storey and there were a large number of “licensed houses of jollification” (Windele 1897).

Samuel Lewis, in his *Topographical Dictionary of Ireland* which was published in 1837, described Watergrasshill as a village partly in the parish of Kilquane but chiefly in that of Ardnageehy. According to Lewis, Watergrasshill stands on the highest ground in the county and in its vicinity were two paper mills, and a church for the union of Killaspigimullane was about to be erected near the village (Lewis 1837).

PARISHES

Ardnageehy

Ardnageehy was translated by Power as *Ard na Gaoithe* or ‘the windy height’ (Power 1917). The parish forms part of the Nagle Mountains, so-called after a family who owned the district for

generations (Anonymous 1892). By 1837, Ardnageehy comprised 15,546 statute acres and supported a population of 3,715. Around six thousand acres in the parish were occupied by the Nagle Mountains and Lepers' Hill and there were two hundred acres of wasteland on the south side of the River Bride. There was also four hundred acres of unworked bog in the parish but generally, the lands comprised rough pasture with some tillage and agricultural practices were improving. The soil overlay a substratum of clay-slate, and flagstones and coarse slate for roofing were to be found in abundance though neither was worked to any great extent (Lewis 1837).

Clondulane

Lewis wrote that this parish lay partly in the barony of Fermoy but chiefly in that of Condons and Clangibbon. Comprising 4,736 statute acres on either side of the River Blackwater, Clondulane supported a population of 1,585. Although the land was mainly used for tillage, there was "excellent pasture on the banks of the Blackwater", two hundred acres of woodland and no bog. Agriculture was progressively improving. A continuous substratum of limestone runs along the north side of the river and in patches along the south side. This limestone was used for building and road repair (Lewis 1837; Bunyan 1983).

Kilquane

This placename has been translated as *Cill Cuain* or 'Cuan's Church' and an ancient church is located in the townland of the same name. Annual stations took place at the holy well in Kilquane on 23rd June and under the patronage of the Anglo-Normans, the patron saint of the well was transferred to another saint (Power 1923). The parish was anciently in the territory of the *Uí Béce Abha* (O'Búachalla). Kilquane (or Kilcoan) is located partly in the barony of Condons and Clangibbon but mainly in Barrymore. In 1837, it contained 5,842 statute acres and supported a population of 2,335. The land was generally fertile though there were parts of "irreclaimable mountain". Agriculture was improving and Knockcumcreagh Mountain, which rises "to a considerable elevation", provided pasture for cattle (Lewis 1837).

Kilshanahan

Translated as *Cill Séanacháin* or 'the church of Senchan'. The church in question was located in the townland of Ballinaltig, the old graveyard of which indicating considerable age due to its elevated nature (Power 1923).

TOWNLANDS

Ballybrowney (Upper and Lower)

Power interpreted this placename as *Baile an Bhrúnaigh* or ‘Browne’s Homestead’ and mentioned that it contained *Loch an Chláirín* or ‘the pond of the little bridge’ (Power 1923). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Ballynagore

Translated by Power as *Baile na gCórr* though he was unable to offer a meaning for the name (Power 1923). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Ballynahina

Translated as *Baile na hOighne* by Power, though he was unable to offer any meaning for the name (Power 1923). In the 1830s, Ballynahina House was the home of Gerard Barry Esq. while Ballynahina Cottage was home to the Rev. Dr. Barry (Lewis 1837). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheets Cork 35 & 44).

Ballynamona

Baile na Mona or ‘town of the bog’, a common townland name in the region. Located in the barony of Condons and Clangibbon and in the parish of Clondulane (OS six-inch sheet Cork 35).

Ballyoran

According to legend, a lake at the bottom of the Corrin hill, now known as Ballyoran Bog or *Currach na Druimmine* (‘marsh of the white-backed cow’), was drained by a local prince to prevent the prophesied drowning of his son (O’Murchú 1975). Located in the barony of Barrymore and in the parish of Castlelyons (OS six-inch sheet Cork 35–6).

Bishops Island

Bishops Island, or Bishopsland as it was also known, was the property of H.M. Smith in the mid-nineteenth century. Windele commented that Smith not only drained the soil but the “population too”, possibly a reference to increased grazing on the estate which was incompatible with sustaining a large

peasant population. He also mentioned that there was a small round fort here (Windele 1897). Located in the barony of Barrymore and in the parish of Ardnageehy (OS six-inch sheet Cork 53).

Corrin and Coolcarron

Corrin stands on the boundary between the baronies of Condons and Clangibbon and Barrymore. The only archaeological find recorded by the Topographical Files of the National Museum of Ireland for the townlands under study was made on the border of Coolcarron and Corrin in the 1830s. The find was that of a “covered cinerary” or “lidded food vessel” within a cist burial beneath the *Corrin Tierna* or ‘Cairn of the Kings’ (72.7cm from the left margin and 44.7cm from the top margin of Ordnance Survey six-inch sheet Cork 35). The find was described in the Cork Historical and Archaeological Society Journal, Vol. 34 (1929). The *Corrin Tierna* near Fermoy is the eastern terminus of the Nagle Mountains which form a range stretching along the entire southern side of the Blackwater as far as Killarney and Castlemain. Windele wrote that the *Corrin Tierna* stands 666ft (203m) in height above sea level (Windele 1897).

The cairn which gives its name to *Corrin Tierna* possibly dates to the Early Bronze Age and is surrounded by a possible Iron Age hillfort, both of which were surrounded by modern afforestation. Considerable folklore surrounds the cairn. One story tells of a prince of the *Fír Maigh Féine* who was warned by a druid that his young son would die from a drowning accident. In order to prevent this prophecy from occurring, the prince ordered a castle to be built at the highest point in his kingdom and as far from water as possible. A large quantity of stones was brought to the summit of Corrin and the lake at the bottom of the hill, subsequently known as Ballyoran Bog or *Curraich na Druimmine* (‘marsh of the white-backed cow’), was drained. One day, while the work of transporting the building material to the site of the castle was still in progress, the boy came across a bucket of water left unattended by the stone masons. Fascinated by his own reflection, he fell into the bucket and was drowned. The construction of the castle was abandoned and the cairn of stones was left behind (O’Murchú 1975).

Lewis mentioned that there was a chalybeate spa in Corrin townland under the mountain of the same name about 1½ miles (2.4km) south of Fermoy (Lewis 1837). Corrin is listed in the 1851 Townlands Index as being in Castlelyons parish, barony of Barrymore, while Coolcarron is listed in Fermoy parish, barony of Condons and Clangibbon.

Curraghprevin

Translated by Power as *Corach Phréibhín* or Previn's Swamp. Power also mentioned that it contained three lios sites—two on John Barry's holding and one on Buttimer's, both of which had been levelled. There was also a well in the townland that was formerly venerated as a holy well though stations were no longer held. It was known as *Tobairín na Fuinnséoige* or 'the little well of the ash tree' (Power 1923). Curraghprevin was one of the townlands burned by O'Neill in revenge for Lord Barrymore's refusal to fight for the Gaelic cause against Queen Elizabeth (Barry 1994). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Curraghteemore

Possibly translates as *Corach Tighe Mór* or 'the plain of the big house'. Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Garrynacole

Power translates this as *Garraidhe Niocóil* or Nichol's Garden. It contained a field known as *Páirc na gCloch* which Power interpreted as 'the field of the standing stones' of which there is longer any trace (Power 1923). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Kilbrien

Derived from *Cill Bhriain* or 'Brien's Church', this place was referred to as 'Killbryanitt' in relation to an inquisition which was held during the reign of King Charles I (1625–49). The site of the ancient church is said to have been located in a field on Collins' holding known as *An Folacht Fiaidh* (Power 1923). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Licklash

Translated by Bunyan as *An Leac Glas* or 'the green/grey stone' (Bunyan 1983). To the east of Fermoy are the castles of Carrickabrick and Licklash, the latter described by Windele in 1849 as "a square castle of rude workmanship built by the Condons". He pointed out that it was built at a strategic location overlooking the River Blackwater and that "some ruinous buildings run along the edge of the precipice on which it is built". Like Carrickabrick, it was double-vaulted and had pointed arches (Windele 1897). In June 1643, the Irish camped at Licklash following their victory over Sir

Charles Vavasour and two years later, Licklash was visited by the troops of Lord Castlehaven before marching on to Fermoy (Waters 1917). Located in the barony of Condons and Clangibbon and in the parish of Clondulane (OS six-inch sheet Cork 27, 35–6).

Lisnagar Demesne

Lisnagar Demesne adjoins the town of Rathcormac on the west. Lisnagar was interpreted by Power as *Lios na gCarr* or ‘lios of the cars’ though this is an unconvincing translation (Power 1923). Barry suggests that it derives from *Lios na Garra* or ‘the enclosed fort’. Lisnagar is important in the history of the Rathcormac area because it was the seat of the MacAdam branch of the Barry family, the first lords of Rathcormac manor, and it later became the residence of the Tonsons, earls of Riversdale. When it became a manor of Robert de Barry, a motte-and-bailey castle was possibly constructed in Lisnagar. There was apparently evidence of this structure until recently when its remains survived as a large earthen mound known locally as ‘the Alps’. Eventually, the possible motte-and-bailey was replaced by a more permanent stone castle, evidence of which survives only in a small guard tower and in the name ‘castle field’. Robert de Barry’s descendents remained in possession of Lisnagar until the 1770s (Barry 1994).

On the death of Adam de Barry in 1358, the manors of Rathcormac, Kilshanahan (Ballinaltig) and Ballydufflotther (Brooklodge) were broken up. His son and heir, David, called himself MacAdam, an indication of the increasing Gaelicisation of the original Anglo-Norman settlers’ descendants. The direct descendants of David MacAdam Barry included the Barrys of Kildinan, Ballinaltig, Curraghprevin, Ballynahina, Ballyclogh and Ballinaglogh. The hospitality of the MacAdam Barrys at Lisnagar was legendary and nobles from the province as a whole came here to enjoy hunting and hawking. Everyday, a feast was laid on at the hall of the castle involving harpers, pipers and bards and the roasting of an ox. By the sixteenth century, the MacAdam Barrys in Lisnagar were living in a tower house which abutted the western side of the present house but which was demolished around 1930. T.A. Barry has written that, like their cousins and overlords the lords Barrymore, the MacAdam Barrys chose their political allegiances wisely. In 1571, they were pardoned by Queen Elizabeth for their involvement in the Desmond revolt of 1569 and they later refused to fight for the Gaelic cause against her. As a result, Lisnagar was burned by O’Neill but the MacAdam Barrys held onto their lands until the 1770s (Barry 1994).

Following the death of Richard Barry in March 1770, the Lisnagar estate was sold to Robert and Nicholas Lawless of Dublin for £59,000. This sale, coupled with the burning of Barrymore Castle in Castletyons the following year, signalled the beginning of the end for the Barry dynasty in East Cork (Barry 1994). By 1837, Lisnagar was the location for “the elegant mansion of the Rt. Hon. Lord Riversdale” which was set in a “small but highly improved demesne” (Lewis 1837). Lisnagar Demesne is located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Maulane East

Power interpreted this placename as *Meallán* which indicates a small rounded hill. He also mentioned a large circular lios in this townland close to the present chapel. However, there was no longer any trace of this monument by the time he was writing. In addition, he referred to the *Bóithrín na Sailighe* or ‘the little road of the willow’ in Maulane and the ‘chapel field’ which was a triangular enclosure northeast of the present crossroads in which stood a former chapel (Power 1923). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Meenane

Translated by Power as *Míneán*, a word which indicates a small patch of green ground on a mountain. Power also noted that a lios not depicted on Ordnance Survey maps was located on Twohill’s farm (Power 1917). Located in the barony of Barrymore and in the parish of Ardnageehy (OS six-inch sheet Cork 53).

Mitchellsfort

Mitchellsfort takes its name from its previous owners but the original name is unknown. Power noted that four small circular lioses were marked on Ordnance Survey maps in this townland. Two had been destroyed by the time he was writing while the third, with ramparts 10–12ft in height, had been partially removed. The fourth still stood to a few feet. Both of the surviving forts were on Fell’s Farm (Power 1923). Located in the barony of Barrymore and in the parish of Kilquane (OS six-inch sheet Cork 53).

Mondaniel

Translated by Power as *Móinín Domhnaill* or ‘Daniel’s Little Bog’. The name may preserve the memory of Domnall, recorded in the Uí Liatháin genealogies as one of the seven sons of Anmchad,

ancestor of the Uí Anmchadha sept (Pender 1938, 34-35). The Uí Anmchadha were the ruling sept of the Uí Liatháin and their eponymous ancestor Anmchadha is mentioned in the Annals sub anno AD 745 (Ó Buachalla 1939, 28). Power also mentioned that there were two large polygonal lioses near the eastern boundary of the townland. (Power & Lane, 2000) Mondaniel was burned by O'Neill in the sixteenth century in revenge for the Barrys' refusal to fight for the Gaelic cause against Queen Elizabeth (Power 1923; Barry 1994). Located in the barony of Barrymore and in the parish of Rathcormac (OS six-inch sheet Cork 44).

Rath-Healy

According to O'Búachalla, Rathealy or *Rath Siadhail* and Corran (formerly called 'Curraghmore alias Corane' and now Strawhall) were part of the territory of the Uí Chonaill sept (O'Búachalla 1950). In the 1830s, Rath-Healy was the seat of J. Lucas Esq. (Lewis 1837). Located in the barony of Condons and Clangibbon and in the parish of Clondulane (OS six-inch sheet Cork 35).

Scartbarry

Translating the placename as 'Barry's Thicket', Power stated that this townland contained a large circular lios on John McCarthy's holding which had been "completely improved away". That other ringforts existed here is indicated by a field known as *Pairc na Leasa* or 'field of the forts' (Power 1923). Located in the barony of Barrymore and in the parish of Kilshanahan (OS six-inch sheet Cork 44 & 53).

Strawhall

On early maps, the height at *An Corrán* was shown as *An Currach Mór* ('the big plain') and is known today as Strawhall. To the north, across the river, was *Rath Siadhail* or Rath-Healy (Brunicardi 1975) and according to O'Búachalla, this area was part of the territory of the Uí Chonaill sept (O'Búachalla 1950). In the 1830s, Strawhall was the seat of J. Carey Esq. (Lewis 1837). Located in the barony of Condons and Clangibbon and in the parish of Clondulane (OS six-inch sheet Cork 35-6).

Tinageragh

Translated by Power as *Tigh na gCaorach* or 'Sheep House', this townland contained three lioses—one quadrangular in plan, one bivallate and the largest circular. The square one is said to have been stone-lined while the circular one had souterrains. The townland also contained St. Stephen's Well, which had not been venerated since the mid-nineteenth century, and a *Seana Bhaile* or old village site

of which no trace remained. Power also mentioned the *Lúb an tSagairt* or ‘the priest’s loop’, a curve in the road that may indicate an early church site (Power 1917). Located in the barony of Barrymore and in the parish of Ardnageehy (OS six-inch sheet Cork 53).

2.1.3 Archaeological

Mesolithic

Most of the evidence for an Early Mesolithic occupation of Munster has ‘come from the Blackwater valley in Co. Cork’ (Woodman 1989, 116). There is no evidence that Mesolithic people built permanent structures. They lived a hunter-gatherer lifestyle and used mainly flint to produce stone tools. West of the town of Fermoy, at Castlehyde East, on north side of the Blackwater River a flint scatter (CO035-063) was identified during a field-study project, (Power & Lane, 2000, 2). Also in the Blackwater Valley, 18km west of Fermoy, in the townland of Kilcummer Lower, over 300 flint pieces were recovered during excavations (CO034-060) by Liz Anderson. Most of these consisted of blades and blade fragments; also found were ten microliths including rods and one scalene triangle, three microburins, two scrapers, a single-platformed core and much debitage, (Power & Lane, 2000, 2). Between Kilcummer Lower and Fermoy, two more flint scatters were found along the Blackwater valley, in the townlands of Conva (CO034:61) and Castleblagh (CO034:62). Evidence of temporary Mesolithic settlement was excavated at Curraghprevin 3 as part of this project.

Neolithic

A major turning point in the history of Neolithic study in the South came with the discovery of three Neolithic houses during the construction of the Gas Pipelines in Munster. Two of these houses were unearthed at Tankardstown in County Limerick while the third was located at Pepperhill in County Cork. The discovery of a Neolithic house at Bangagore on the route of the Ballincollig Bypass (Danaher, forthcoming) is only the second example excavated in County Cork. There were examples of Early Neolithic carinated pottery also found at two sites along that route at Curraheen 1 and Ballinaspig 5. There was no evidence of Neolithic activity found during excavations along the N8 Glanmire-Watergrasshill Bypass. Three sites excavated as part of this project had Neolithic activity. At Curraghprevin 3, there was evidence of temporary settlement, spanning the Mesolithic, Neolithic and Bronze Age. A *fulacht fiadh* dating to the Neolithic was excavated at Fermoy 2 and an isolated Neolithic pit was excavated at Corrin 1.

Buzer (1980) suggests that human activity may have been responsible for a decrease in tree pollen which coincides with the rise in grasses at Ballyally Lough, County Cork. However, the crux of the pollen evidence would suggest a pattern of minor woodland disturbance and that the human impact on vegetation was minimal up until the late Neolithic and early Bronze Age (O'Brien 1999).

Bronze Age

The Bronze Age is accredited with having the most significant impact on the landscape of the South during the prehistoric period. This is supported by the distribution and abundance of associated archaeological sites and monuments as well as from the regional pollen evidence. Pollen diagrams indicate permanent woodland clearances that possibly represent an increase in agricultural activity caused by an increase in human population particularly in the later Bronze Age. This woodland is replaced by a “cultural landscape dominated by acidic grasslands, blanket peats and agricultural land” (O'Brien 1999).

In terms of monuments dating from the Bronze Age, both wedge tombs and stone circles are the most visible, while *fulachta fiadh* are the most numerous with over two thousand examples having been recorded for County Cork alone (however, these cannot all be ascribed to the Bronze Age). Of the overall number of *fulachta fiadh* discovered, only a fraction of these have been scientifically excavated. Until relatively recently, many were looked at in isolation rather than within their wider settlement context. Internationally, burnt mounds are known from Scandinavia, Wales, Scotland, Orkney, the Shetland Islands and parts of Cumbria (Buckley 1990, 9). On the ground, the classic *fulacht fiadh* is a relatively low grassy mound of crescent or U-shaped plan. Ploughed-out examples reveal themselves as large spreads of burnt stone and charcoal in the ploughsoil. They are usually, though not exclusively close to water, often a stream, lake, river or marsh. They sometimes occur in groups, clusters of two to six occasionally being located within quite a small area. *Fulachta fiadh* are recognised to have a number of consistent features: a mound of heat-fractured stones, a trough and traces of fires sometimes represented by a formal hearth.

Linear road projects such as this one provide a transect through the archaeological landscape of a region. The proposed road passes through large tracts of marshy ground and *fulachta fiadh* were the most common archaeological sites encountered. During archaeological investigations of N8 Rathcormac-Fermoy Bypass route, ten *fulachta fiadh* sites were identified (Fermoy 1, Fermoy 2, Fermoy 4, Corrin 4, Corrin 6, Kilbrien 1, Lisnagar Demesne 2, Lisnagar Demesne 3, Scartbarry 1 and

Ballynahina) which varied from small isolated burnt mound spreads (eg. Fermoy 1 and Kilbrien 1) to multiple burnt spreads with associated activity (eg. Fermoy 2 where a cremation pit and flint hoard were evident or Scartbarry 1 where a stone-lined hearth and a palisade enclosure were identified). Seven *fulachta fiadh* were excavated along the route of the N8 Glanmire-Watergrasshill Bypass (Purcell, 2003).

There are a number of *fulachta fiadh* listed in the Record of Monuments and Places in close proximity to the N8 Rathcormac-Fermoy Bypass route. In the Skahanagh North townland, there is a cluster of three *fulachta fiadh* (CO053-091); four have been identified in adjoining fields in Ballinantig (CO053-067, 68); three *fulachta fiadh* are listed at the base of Corrin Hill (CO035-050) and three are listed in adjoining fields (CO035-058, 068, 070). There are two *fulachta fiadh* in the townland of Coolcarron (CO035-75, 077), one at Ballyoran (CO035-057) and one at Ballynoe (CO035-081).

A group of around fifty wedge tombs is present on the ridge and valley topography of the upper Lee valley basin and surrounding landscape of mid Cork (O'Brien, 1999). Approximately 12km northwest of Fermoy on the Glanworth road, there is a large wedge tomb in the townland of Labbacallee (CO027-086). At a distance of 2km north of Labbacallee wedge tomb is another at Manning (CO027-091). Approximately 8km east of the town of Watergrasshill is the ruinous wedge tomb at Rathaneague (CO054-007).

There are numerous examples of Bronze Age burial within the study area. There is an oval cairn in the townland of Coolcarron, (CO035-049/02). This cairn which gives its name to *Corrin Tierna* possibly dates to the Early Bronze Age and is surrounded by a possible Iron Age hillfort, both of which are surrounded by modern afforestation. There are a number of Bronze Age cemetery sites in the North Cork region. The excavated cemetery at Moneen, (CO027-160) is 2km west of the aforementioned Labbacallee wedge tomb. The cemetery consists of four rectangular cists, covered by a cairn enclosed by kerbstones laid on their edge, (Power & Lane, 2000, 195). Again further west from Moneen is another cemetery at Ballyenahan North. This flat cemetery, (CO018-051) had a probable total of seventeen graves found, of which six were excavated. Finds included vessels and a bronze dagger, (Power & Lane, 2000, 197).

There are examples of ring-ditches close to the route, for example, at Cregg North, west of the town of Fermoy, there is a linear series of four similar sized ring ditches, each with a diameter less than

10m, possibly the remains of a linear barrow cemetery, (CO035-013/02-05). At Castlehyde East, there is a small circular enclosure with a diameter of c 15m, (CO035-093), (Power & Lane, 2000, 193). During excavations along the route of the N8 Glanmire-Watergrasshill Bypass, three Bronze Age cremation pits were excavated, two in the townland of Killydonoghoe, close to a Bronze Age house, and one isolated cremation pit at Mitchellsfort (Sherlock, 2003). There was also an isolated cremation pit excavated during this project at Skahanagh North 1.

There are many examples of Bronze Age *fulachta fiadh* and burial sites. It is only with recent archaeological excavations for the N8 Glanmire-Watergrasshill Bypass and Rathcormac-Fermoy Bypass that definite Bronze Age settlement sites have been identified and excavated.

On the current road scheme, a number of sites that consisted of Bronze Age small pits and limited remains were excavated. One site, Ballybrowney Lower 1 was exceptional. The settlement at Ballybrowney Lower 1 consisted of two pallisaded enclosures, one ditched enclosure, three circular houses and a cremation pit within a rectangular enclosure. A stone-lined corn-drying kiln on the site is probably medieval. During the N8 Glanmire-Watergrasshill Bypass, a circular Bronze Age house was excavated at Killydonoghoe (Sherlock, 2003).

Iron Age

The Iron Age is possibly the most obscure period in Irish prehistoric archaeology. At present, there is little evidence of a significant Iron Age presence in the Cork region. Settlement sites are few and far between as well as being difficult to identify (Woodman, 2000) while the material culture of this period, which has been used to indicate Iron Age activity in other regions of the country, is limited. The aforementioned Iron Age hillfort on Corrin Hill (CO035-049) surrounds a Bronze Age cairn and stone cross erected in 1952. Corrin Hill itself has strong religious/spiritual associations and much local legend and folklore surrounds it. There are two holy wells also noted in its vicinity (CO035-051, 069). There is another Iron Age hillfort at Caherdrinney (CO019-097/03), south of the town of Mitchelstown. This encloses a later inner hilltop enclosure and Caherdrinney Castle (CO019-097/01-02).

At Lisnagar Demesne 1, iron slag was found within and around a furnace. There were a number of bowl furnaces excavated during the N8 Glanmire-Watergrasshill Bypass within a kilometre of roadway. At Ballyvinney North, there was an isolated bowl furnace truncated by later agricultural

activity, (Sherlock 2003). There was a cluster of five possible bowl furnaces at Kilrussane and at Trantstown there were two furnaces close to each other, one of which had its clay lid *in situ*, (Sherlock, 2003).

The Claidh Dubh is the name given to three separate stretches of linear earthworks in County Cork. The longest stretch is in north County Cork where it runs for approximately fourteen miles from the Nagles Mountains across the Blackwater Valley and into the Ballyhoura. It is approximately 12km west of the current N8 Fermoy-Mitchelstown road. Limited excavations of a stretch of it have established that peat growth had begun by approximately AD 100, dating the trackway to some time before, (Doody, 1995, 23).

Medieval/Post Medieval

The predominant archaeological monuments within the environs of the N8 roadway are ringforts or enclosure sites. Indeed, these monuments were the most common settlement type in the Early Medieval period, with around 30,000 examples identified. Ringforts are usually situated on gentle slopes with good views of the surrounding countryside. Ringforts appear as a circular area defined by banks and external ditches and excavation often reveals the remains of dwelling houses within their interior. Many of the ringforts within the RMP files appear to fit into the average size associated with these monuments of around 30-40m in diameter. The banks are generally constructed of earth except in stony areas where they may be constructed of stone. Most ringforts are enclosed by a single bank but it is also quite common for them to have two sets of banks (a 'bivallate' ringfort) or even three ('trivallate'). The land in this area of Cork is generally of good quality and this, therefore means that a high number of ringforts have been partially or completely destroyed

Although they can have a dispersed distribution in the landscape, they are occasionally found in pairs or clusters or even joined together to form a 'conjoined ringfort'. Within this study area, the ringforts listed in the Record of Monuments and Places are mostly in pairs or clusters with a number associated with souterrains. Souterrains are man-made structures composed of a chamber or a number of chambers linked by narrow passages and entered from ground level by a narrow, often concealed opening. They are often found within ringforts and date predominantly to the Early Christian period. There are two possible explanations as to the function of these features, namely as storage or a place of refuge. A survey of souterrains in Cork showed three main types of design, all of which are present in East Cork (McCarthy 1983, 100-105).

Within the townland of Skahanagh North, there is a concentration of this monument type. One of these has been partially excavated as part of this project (CO053-010, Skahanagh North 3). One other ringfort (CO053-011) within the townland had a souterrain in the interior (CO053-076). This can also be seen at Skahanagh South where a souterrain (CO053-077) is located in the eastern half of a ringfort (CO053-047). There are also two possible ringforts (CO053-012, CO053-013) and one circular enclosure (CO053-078) within Skahanagh North, perhaps representing clustering of these monuments within this area. West of Skahanagh North, in Cordonstown North there was a ringfort (CO053-009) with a possible souterrain in the interior (CO053-075). East of Skahanagh North, there was another ringfort in the townland of Coolquane (CO053-015). There are other examples of pairs and clusters along the route. The townland of Scartbarry contains one possible ringfort (CO053-014) and four enclosures, three circular (CO053-087, 088, 090) and one rectangular (CO053-089) in shape. In the townlands of Mondaniel, Corrin and Kill St Anne North, there are four ringforts within 1.5km (CO044-007, 008, 009, 010). Also within the townland of Corrin, there is a circular enclosure (CO035-050) that was partially excavated during this project, (Corrin 1).

There is a ringfort at Ballybrowney Lower (CO044-029). This circular area was defined by three earthen banks with intervening fosses. It was located in a field just west of the Bronze Age settlement site, Ballybrowney Lower 1 excavated as part of this project and close to a cluster of pits and a bowl furnace excavated at Lisnagar Demesne 1. In the townland of Kilshannig Upper, there is a circular enclosure (CO044-031) and a ringfort (CO044-032) in close proximity to each other. In the townland of Ballyglissane, there are two possible ringforts, (CO044-034, 035) with two possible souterrains in the adjoining fields, (CO044-062, 065). In the townlands of Inchinapallas and Glanworth there are two ringforts (CO027-075 and CO027-077) in adjoining fields. There is another possible ringfort (CO027-074) nearby also in the townland of Inchinapallas. There are two possible ringforts (CO027-083-084) in the townland of Labbacallee. In the townland of Ballymona there are two circular enclosures and a ring ditch clustered together (CO027-130, 163). A later limekiln and a souterrain are associated with the ringfort at Ballyhindon (CO027-106).

Moated sites are the defended homesteads of Anglo-Norman settlers dating to approximately the late 13th century. There was a medieval moated site excavated as part of N8 Glanmire-Watergrasshill Bypass at Ballinvinn South. Within a moated sub-rectangular enclosure there were the remains of two medieval houses. Several structures, part of a post-medieval settlement, were superimposed on its

in-filled ditch and entrance area, (Cotter 2003, 27). A motte-and-bailey castle was possibly constructed in Lisnagar Demesne. There was apparently evidence of this structure until recently when its remains survived as a large earthen mound known locally as ‘the Alps’. Eventually, the possible motte-and-bailey was replaced by a more permanent stone castle, evidence of which survives only in a small guard tower and in the name ‘castle field’.

There are a number of castles in the vicinity of the route. At Licklash, east of Fermoy town, there are the ruins of a hall-house and tower, (CO036-001). The earliest part of the structure was possibly a 13th century hall with a tower added in the 16th century. Similarly at Castlelyons, there are elements of the original 13th century castle surviving among the 17th century additions. There is the site of a castle at Shanaclogh, west of Rathcormac, (CO044-020). Only the fragmentary remains of a rectangular structure are visible in the field.

Many church sites date back to the beginnings of Christianity in Ireland. Within the townland of Kilbrien, the site of an ancient church is said to be located in a field known as *An Folacht Fiaidh*, (Power 1923). In the townland of Ballynoe, at the base of Corrin Hill, there is another early ecclesiastical site, (CO035-100). There are no remains of the church on this site. The early Kilcrumper Church is in the townland of Lisnasallagh (CO027-114/02). This church was reported to be ‘in ruins’ in 1615 and a church was listed here in Papal Taxation of 1291 (Power & Lane, 2003). In Rathcormac village, the Church of Ireland church according to local tradition was built in 1775 (CO044-049/02) almost certainly on the site of the medieval church, which was also listed in the Papal Taxation list of 1291. It has an associated graveyard, (Power & Lane, 2003). There are other Church of Ireland churches listed at Carrignagroghera (CO035-021), Castlehyde East (CO035-017/02) and Ballinterry (CO044-040/02). In Fermoy town, there is an Abbey, on the south bank of the Blackwater River, (CO035-024).

During ploughing near Rathcormac village in late 1882 or early 1883, six twisted silver torques were discovered under a stone. One of the hoard came into the possession of R. Westropp and was ornamented with “various markings and engravings” (Anonymous 1883).

During the fifteenth century, the tower house (a relatively plain structure of three or more storeys in height) became the principle dwelling type for the wealthy Anglo-Irish landowning class of The Pale. Outside The Pale, tower houses were also used by families of the Gaelic gentry who frequently fought

each other as well as the Anglo-Irish. Gaelic clans were also prone to fighting amongst themselves and in the early fourteenth century, one branch of the O'Brien clan was frequently attacking the others. This hostile environment ensured that tower houses were common all over the country. Cork, Limerick, Tipperary and Clare are particularly abundant in tower houses, mainly dating to the period 1450-1500. There are examples of tower houses listed at Garraunigarínagh (CO027-101), Ballynahow (CO027-107), Moorepark (CO027-107), Castleyde East (CO035-015) and at Cregg North (CO035-014). A five-storey circular tower house is located at Carrigabrick (CO035-027/02).

The country house and its demesne were dominant features of the rural Irish countryside throughout the 18th and 19th centuries. There are many more of this site type in the East and South of Cork by comparison with West Cork. This reflects the richer quality of the land here and the influence of the city (Power & Lane, 2000, 312). Within the RMP files, there was a country house with an ice house listed at Kilshannig Upper (CO044-033), built in approximately 1766. There is also an early 18th century country house at Lisnagar Demesne (CO044-11). This house was remodelled in the early 19th century in a Tudor-Gothic style and has a large ornamental lake to its east. While the house remains undisturbed by the proposed road scheme part of the walled garden associated with it will be impacted upon.

Limekilns are an industrial feature of medieval and post-medieval date. They were generally used in the burning of limestone to produce quicklime. In the medieval period limekilns were predominately used for the production of mortar for building purposes. Many townlands had their own limekiln until the nineteenth century, especially in hill areas (Aalen 1997). The burning of lime as an agricultural fertiliser became widespread with the improvements of the 18th century and the 1st edition OS 6 inch map shows thousands of lime kilns in County Cork, (Power & Lane, 2000, 312). A number of limekilns were listed in the RMP files, namely, at Maulane East (CO044-054), Bridgeland West (CO044-055) and at Gortore (CO027-116). While these are not directly within the road route, during the excavations two limekilns were uncovered at Mondaniel 3 (probably medieval) and one post-medieval limekiln was identified at Lisnagar Demesne 1.

There were a number of one-story vernacular houses noted in the RMP list within the study area. At Ballybrowney Lower, there are two occupied one-story vernacular houses (CO044-030). One has a hipped roof of thatch while the other was formerly thatched but has been replaced with corrugated iron. The abandoned one-story vernacular house at Coolnakilla (CO044-051) had a hipped roof of

thatch. At Kilshannig Lower, there was another abandoned one-story vernacular house (CO044-051). It had a hipped roof of thatch while the rear of the roof was of corrugated iron.

Corn milling developed in Cork in the late 18th century. The most common form of water wheel used in the North Cork mills were breastshot nearly half of which are suspension water wheels (Power & Lane, 2003, 699). As part of this project, corn-drying kilns were excavated at Ballynamona, Fermoy 2 and Scartbarry 2. There are the remains of a large mill complex in Fermoy (CO035-025) and a corn mill located at Rathcormac. There are two bridges listed within the RMP record of the study area. The Fermoy Bridge linking Fermoy and Carrignagroghera (CO035-073) and the Carrigabrick Bridge, a railway bridge linking Carrigabrick and Rath Healy (CO035-027/01).

3. ORIGINAL RESEARCH FRAMEWORK

The research framework for Fermoy 1 will address the following topics:

- (i) The construction date or date of initial site occupation/use
- (ii) The extent of the archaeological site/ activity
- (iii) The location and distribution of known contemporary sites in the local, regional and national context.
- (iv) The nature and composition of the archaeological finds, features, layers and deposits on site.
- (v) The function of the site and its likely interrelationships with the contemporary social, economic, cultural and natural environment.
- (vi) The interrelationships of this site with Fermoy 2 and Fermoy 4.

4. EXCAVATION RESULTS

4.1 Excavation Methodology

Topsoil stripping on this site was carried out by machine equipped with a grading bucket. Spoil was managed by a dumper and was stored on archaeologically sterile areas within the limits of the site. The recording techniques employed were based on a recording system that best suits a rural environment. All potential archaeological features exposed were cleaned, recorded (by plan, photographs, levels, feature sheets etc.) and removed by hand excavation. Features were numbered

sequentially from 1 to 99, ie F12 represents feature 12. The site was recorded using multi-context planning of all features exposed. An appropriate sampling strategy was employed and both soil and charcoal samples were taken in an effort to obtain a date and function for the various features. Any finds were washed (where appropriate), treated and catalogued on site and left ready for any further post excavation analysis deemed necessary. They were numbered according to the requirements of the National Museum of Ireland from 1 to 99 according to licence number and feature number, ie 03E1465:12:4 represents find number 4 within feature number 12 in Fermoy 1 which was tested under licence number 03E1465. Upon completion of excavation all cuttings were surveyed using GPS equipment and only areas within the CPO were resolved.

4.2 Full Stratigraphic Report

4.2.1 Stratigraphic Matrix

Natural Deposit

C002 Natural Subsoil.

Trough Construction

C013 Trough cut (OD 21.203m), rectangular in shape with rounded corners, a sharp break of slope at the top, a gradual break of slope at the base with vertical sloping sides and a flat base, orientated east/west in direction. Dimensions: 2m x 1.5m and was 0.4m in depth, cut into **C002**, filled by **C012**, **C018**, **C011**, cut by **C019**, **C021**, **C023**

C019 Stake-hole cut with a pointed base (OD 21.199m). Dimensions: 0.1m x 0.08m, at least 0.1m in depth, cut into **C013**, filled by **C020**.

C020 Deposit of **C019**, soft light grey brown silty clay. Dimensions: 0.1m x 0.08m, at least 0.1m in depth, below **C012**.

C021 Stake-hole cut (OD 21.198m), a shallow pointed depression. Dimensions: 0.08m x 0.07m x 0.08m in depth, cut into **C013**, filled by **C022**.

C022 Deposit of **C021**, soft light grey brown silty clay. Dimensions: 0.08m x 0.07m x 0.08m in depth, below **C012**.

C023 Stake-hole cut (OD 21.199m), a pointed base. Dimensions: 0.07m x 0.06m x

0.06m in depth, cut into **C013**, filled by **C024**.

C024 Deposit of **C023**, soft light grey brown silty clay. Dimensions: 0.07m x 0.06m x 0.06m in depth, below **C012**.

C025 Stake-hole cut with a pointed base (OD 21.20m). Dimensions: 0.07m x 0.06m x 0.06m in depth, filled by **C026**.

C026 Deposit of **C025**, soft light grey brown silty clay. Dimensions: 0.07m x 0.06m x 0.06m in depth, below **C012**.

C015 Posthole cut, sub-circular in shape, a sharp break of slope, vertical sides to the east, the sides were disturbed to the west and a pointed base (OD 21.491m). Dimensions: 0.18m x 0.15m and was 0.2m in depth, cut into **C013**, filled by **C014**.

C014 Deposit of **C015**, a loose dark greyish-brown-black silty clay with occasional charcoal flecks and frequent small angular shattered sandstone. Dimensions: 0.18m x 0.15m and was 0.2m in depth, below **C012**.

C017 Posthole cut, oval in shape with rounded corners, a sharp break of slope, sloping sides and a pointed base (OD 21.376m). Dimensions: 0.18m x 0.16m x 0.18m in depth, cut into **C013**, filled by **C016**.

C016 Deposit of **C017**, soft dark grey-brown silty clay with moderate charcoal flecks and small angular shattered sandstones, occasionally burnt, below **C012**.

Deposits within trough

C012 Trough deposit, burnt remnants of timber lining with frequent charcoal flecks, Dimensions: 2m x 0.4m x 0.01-0.02m in depth, fill of **C013**, below **C018**.

C018 Middle trough deposit, soft light grey-white silty clay with occasional charcoal. Dimensions: 2m x 1.5m x 0.02-0.04m in depth, fill of **C013**, above **C012**, below **C011**.

C011 Upper trough deposit (OD 21.591m), spread out beyond the trough, a soft light grey brown silty clay with frequent small angular broken sandstone, occasional medium angular sandstone, occasional charcoal flecks and patches of re-deposited natural. Dimensions: 2m x 1.75m x 0.2m, fill of and overspill of

C013, above C018, below C005, C010.

Fulacht Spreads

- C003** Spread, loose dark brown-black charcoal-rich silty clay, with abundant burnt stone inclusions (OD 21.771m). Dimensions: 1.47m x 0.86m and 0.09m in depth, above **C002**, below **C001**.
- C004** Spread, loose dark brown-black silty clay spread (OD 22.266m) with abundant charcoal and burnt stone inclusions. Dimensions: 2.9m x 2.6m and 0.24m in depth, above **C002**, below **C010**.
- C005** Spread, loose dark brown-black silty clay with patches of sand and re-deposited natural, with frequent burnt stone and charcoal inclusions (OD 21.716m). Dimensions: 2.5m x 4.8m and was 0.23m in depth, above **C018**, **C010**.
- C006** Spread, loose dark brown silty clay with areas of re-deposited natural and burnt stone inclusions (OD 21.961m). Dimensions: 1.6m x 2.6m, above **C002**, below **C007**, **C001**, adjoining **C009**.
- C009** Spread, loose light brown-grey silty clay with occasional charcoal flecks and small stones. Dimensions: 1.5m x 1m and 0.15m in depth, above **C002**, adjoining **C006**, below **C001**.
- C007** Spread, loose brown-grey silty clay with abundant sandstone (OD 21.771m), above **C010**, below **C001**.
- C008** Spread, a dark grey-pink silty sandy clay deposit with frequent sub-angular stones and charcoal, below **C003**, above **C002**.
- C010** Spread, light brown-grey silty clay with pink-grey mottling and frequent manganese flecks (OD 21.451m). Dimensions: 6m x 3m and 0.14m in depth, above **C004**, **C011**, below **C007**, **C001**.

4.2.2 Stratigraphic Sequencing

This section represents stratigraphic detail, with all periods represented, starting at the earliest.

Period 1

Phase 1: Bedrock, Formation of alternating Devonian sandstones and siltstones (river and floodwaters deposited onto what was an arid desert-like environment some 410-355 million years ago) underlying Carboniferous limestones and shales. Specifically, the bedrock at this site at Fermoy 1 is Upper Devonian gyleen formation that is sandstone with mudstone and siltstone.

Phase 2: Glacial moraine (substratum), **C002**. Silty clay deposits representing glacial moraines which form at the edge of glaciers and, as sedimentological contexts, are often the location of prehistoric human occupations. This sediment, being the predominant one throughout the site, was the product of the Quarternary period, which ranged in time from the beginning of the Ice Age (1.6 million years ago) to the present day and is the final stratum in the geological timescale. Following the last Ice Age, almost eleven thousand years ago, the temperature rose resulting in the colonising of these bare soils by herbaceous species such as grasses, meadowsweet and dock.

Phase 3: Environmental stabilisation/ Soil formation **C001**.

Period 2

Phase 1

Construction and use of the trough (Figure 8, Plates 6 & 7)

The earliest feature was the trough. **C013**, the trough cut was rectangular in shape with rounded corners. It measured 2m x 1.5m and was 0.4m in depth. It had a sharp break of slope at the top, a gradual break of slope at the base with vertical sloping sides and a flat base. It was orientated east/west in direction.

There were four stake-holes under and sealed by the timber lining, **C012** at the base of the trough. At its southeast corner was **C019**, a stake-hole cut with a pointed base. It measured 0.1m x 0.08m and was at least 0.1m in depth. It was filled by **C020**, soft light grey brown silty clay. Towards the northeast corner was **C021**, a shallow pointed depression that measured 0.08m x 0.07m x 0.08m in depth. This probable stake-hole cut was filled with **C022**, soft light grey brown silty clay. At the

northwest corner was **C023**, a stake-hole cut with a pointed base that measured 0.07m x 0.06m x 0.06m in depth. It was filled by **C024**, soft light grey brown silty clay. At the southwest corner was **C025**, a stake-hole cut with a pointed base. It was filled with **C026**, soft light grey brown silty clay.

There were two postholes cut into the top of the trough at its northeast and southeast. At its southeast corner was a posthole cut, **C015**. It was sub-circular in shape, measured 0.18m x 0.15m and was 0.2m in depth. It had a sharp break of slope, vertical sides to the east, the sides were disturbed to the west and a pointed base. It was filled by **C014**, loose dark greyish-brown-black silty clay with occasional charcoal flecks and frequent small angular shattered sandstone. At the troughs northeast corner was another posthole. Its cut, **C017** was oval in shape with rounded corners. It had a sharp break of slope, sloping sides and a pointed base. It measured 0.18m x 0.16m and was 0.18m in depth. It was filled by **C016**, a soft dark grey-brown silty clay with moderate charcoal flecks and small angular shattered sandstones, occasionally burnt.

C012 was the burnt remnants of timber lining within the trough, concentrated mainly at the sides. As this sealed the four stake-holes this probably represented a second relining of the trough. It had frequent charcoal flecks, measured 2m x 0.4m and was 0.01-0.02m in depth. The charcoal from this deposit was identified as oak and radiocarbon analysis of it produced a date of 1190-800BC.

Phase 2

Debris deposits from trough (Figures 6 & 7)

C018 was the middle deposit within the trough. It was soft light grey-white silty clay with occasional charcoal. **C011** was the top deposit within the trough and it spread out beyond the trough. **C011** was soft light grey brown silty clay with frequent small angular broken sandstone, occasional medium angular sandstone, occasional charcoal flecks and patches of re-deposited natural.

There were a number of fulacht spreads **C003-C010**, representing different debris deposits from the trough. At the east of the site was **C003**, loose dark brown-black charcoal-rich silty clay, with abundant burnt stone inclusions (Plate 5). It measured 1.47m x 0.86m and was 0.09m in depth. Located 0.5m west of **C003** was **C004**, loose dark brown-black silty clay spread. It had abundant charcoal and burnt stone inclusions and measured 2.9m x 2.6m and was 0.24m in depth. The charcoal from this deposit was identified as oak and produced a radiocarbon date of 820-410BC. North of **C004** was **C005**. This fulacht spread was loose dark brown-black silty clay with patches of sand and

redeposited natural, with frequent burnt stone and charcoal inclusions (Plate 4). It measured 2.5m x 4.8m and was 0.23m in depth.

Southwest of **C005**, **C006** was loose dark brown silty clay with areas of redeposited natural and burnt stone inclusions. It measured 1.6m x 2.6m. Adjacent to **C006**, **C009** was loose light brown-grey silty clay with occasional charcoal flecks and small stones. It measured 1.5m x 1m and was 0.15m in depth. **C007** was loose brown-grey silty clay with abundant sandstone. **C008** was a dark grey-pink silty sandy clay deposit with frequent sub-angular stones and charcoal. The deposit, **C010** was overlaid slightly by **C007**, and was overlying the fulacht spread **C004** and the trough deposit, **C011**. **C010** was light brown-grey silty clay with pink-grey mottling and frequent manganese flecks. It measured 6m x 3m and was 0.14m in depth.

Phase 3

Abandonment of site

Period 3

Phase 1

The formation of sod above the silt.

The topsoil on this site is **C001** and its depth was 0.35m.

Phase 2

Modern Agricultural Activity

This site was under grass, approximately 0.4m in height.

4.2.3. Stratigraphic Discussion

Stratigraphically, the earliest archaeological activity on this site was the construction of the trough. It was sub-rectangular in shape and measured 2m x 1.5m and was 0.4m in depth. It was cut into the natural subsoil. The timber lining along the sides of the trough did not survive. The timber lined base of the trough rested on four timber stakes. The trough was probably re-lined and the four stakeholes are all that survive of the original lining. The burnt remnants of the second timber lining within the trough produced a radiocarbon date of 1190-800BC. There were two postholes visible along the eastern side of the trough and they probably represent two posts that supported a windbreak.

Once the trough was constructed, it was filled with water. The trough capacity was at least 1200 litres (264 gallons). Stones would then have been heated in a hearth and placed in the water to boil it. There is no evidence of a hearth at this site, but this may be a question of survival, as the land has been extensively ploughed. Perhaps it was not represented by any formal feature or may be outside the road corridor. Sandstone was the most frequently used stone on this site.

Once the stones and debris were removed from the trough, they were discarded east and south of it. There was a maximum of eight debris deposits scattered from the trough, with a minimum surviving total burnt mound volume of 7191.8 litres (1582.196 gallons). Charcoal from one of the deposits was identified as oak and produced a radiocarbon date of 820-410 BC. The trough was eventually abandoned and filled in with debris. The timber lining was burnt and two fills accumulated within the trough, the uppermost fill completely sealing it. There were a maximum of ten deposits discarded at this site. All the features are related and dated to the Late Bronze.

4.2.4. Stratigraphic Conclusion

From an analysis of the stratigraphy of this site, we can form the conclusion that this was the site of a *fulacht fiadh*. A trough was constructed at this site. It originally had four stakes at its base, representing the initial lining of the trough. Presumably these stakes supported the timber lining at the sides of the trough. However, the trough was later relined with timber planks at the base and when excavated this lining sealed the timber stakes. There were two posts along its eastern edge at the top, possibly representing a windbreak. The trough was filled with water from the stream and heated sandstone was added to boil the water. After each boiling the debris was removed from the trough and deposited to the east and south of it. There are a maximum of ten deposits discarded at this site. After use, the timber lining at the base of the trough was burnt and the trough was filled in and abandoned.

4.3 Cultural Material

There were no artefacts recovered from this site.

4.4 Environmental Evidence

4.4.1 Flotation results of Environmental Samples

Two environmental bulk soil samples were sieved for this site. Charcoal was recovered from the two samples.

Table: Flotation results of General Environmental samples					
Site Name: Fermoy 1				Licence No.: 03E1465	
Context number	Sample number	Feature type	Sample vol (litres)	Sample type	Material recovered
5	3	Oblong spread	2.7kg	Bulk soil	Charcoal 0.010kg
4	1	Oval Spread	5.5kg	Bulk soil	Charcoal 0.048kg

4.4.2 Charcoal samples sent for analysis

Three charcoal samples were chosen for further analysis. The three samples were sent for wood identification, with two of them subsequently sent for radiocarbon dating

Table: Charcoal samples sent for analysis					
Site Name: Fermoy 1				Licence No.: 03E1465	
Context number	Sample number	Feature type	Sample vol	Sample type	Analysis results
12	5	Trough lining	0.120kg	Charcoal	Identified as oak and dated to Cal BC1190-800 (2780+/-90BP)
4	2 & 1	Oval shaped spread	0.048kg	Charcoal	Identified as oak and dated to Cal BC820-410 (2520+/-70BP)
5	4	Oblong spread	.010kg	Charcoal	Identified as oak

4.5 Dating Evidence

Radiocarbon analysis of two charcoal samples obtained from this site indicate that the trough was constructed and timber-lined during the Late Bronze Age and the site continued in use until the end of the Bronze Age.

5. DISCUSSION

Of the overall number of *fulachta fiadh* discovered, only a fraction of these have been scientifically excavated. Until relatively recently, many were looked upon in isolation rather than in their wider settlement context. Internationally, burnt-mounds are known from Scandinavia, Wales, Orkney, the Shetland Islands and parts of Cumbria (Buckley 1990, 9). On the ground the classic *fulacht fiadh* is a relatively low grassy mound of crescent or U-shaped plan. Ploughed-out examples, such as this site reveal themselves as large spreads of burnt stone and charcoal in the ploughsoil.

The setting of this site is similar to that of a large number of other *fulachta fiadh* located around the country. *Fulachta fiadh* or burnt-mounds have been identified throughout Ireland and are the most common prehistoric monument in the country. At present over 4,600 have been recorded though this number will increase with further field study and excavation. The largest concentrations of these sites are in Munster with over 2,500 examples alone in County Cork (Buckley 1990, 3), approximately one per 2.97 sq km. The distribution of sites in County Cork is uneven. Densities are very great in the north-western and central parts but sparse in the western peninsulas. Power (1990) notes that in County Cork, as elsewhere in the country, the location of *fulachta fiadh* shows a preference towards streamside sites. Dense clusters of this site type are present close to streams along the sandstone ridges that separate the main river valleys in the county.

During archaeological investigations of this project, ten *fulachta fiadh* sites, were identified which varied from small isolated burnt mound spreads such as this site to multiple burnt spreads with associated activity, for example at Fermoy 2 where three *fulacht fiadh* were excavated and a cremation pit and flint hoard were also evident. The *fulachta fiadh* on the route dated from the Neolithic through to the Iron Age. A number of *fulachta fiadh* on the route are roughly contemporary with this site. A *fulacht*, also in the townland of Fermoy, at Fermoy 4 was dated to 830-780BC and was also timber-lined. At Ballynahina, another *fulacht fiadh* produced a radiocarbon date of 910-370 BC, again placing it firmly in the Late Bronze/Early Iron Age. We can conclude that *fulachta fiadh* was in use in many townlands close to this site and contemporary with it. Seven *fulachta fiadh* were excavated along the route of the N8 Glanmire-Watergrasshill Bypass (Purcell, 2003).

There are a number of *fulachta fiadh* listed in the Record of Monuments and Places in close proximity to the N8 Rathcormac-Fermoy Bypass route. In the Skahanagh North townland, there is a cluster of

three *fulachta fiadh*; four have been identified in adjoining fields in Ballinantig; three *fulachta fiadh* are listed at the base of Corrin Hill and three are listed in adjoining fields. There are two *fulachta fiadh* in the townland of Coolcarron, one at Ballyoran and one at Ballynoe. It can be concluded that there is an abundance of *fulachta fiadh* sites in this North Cork landscape.

It is probably true to say that the basic function of a *fulacht fiadh* was to provide boiling water and in order to achieve this three key elements are needed: water, firewood and stone. There was a stream to the west of the site and River Blackwater is located two fields to its south. Analysis of charcoal from this site has revealed that oak was used as firewood and timber lining for the trough. At this site, oak (*Quercus sp.*) was identified from the charcoal remains associated with the lining of the trough and the two spreads. Throughout all periods of prehistory and history oak has been used for structural timbers. Oak troughs associated with *fulacht fiadh* have been excavated and identified at Lisheen, Co. Tipperary (Gowen, 2005) and at a nearby site Fermoy 4 (03E1639). Oak also has unique properties of durability and strength. Sessile oak (*Quercus petraea*) and pedunculate oak (*Quercus robur*) are both native and common to Ireland. Both species of oak grow to be very large trees (30-40m) and can live to an age of about 400 years. The oak (*Quercus spp.*) identified suggests that there was a supply of oak in the surrounding environment at Fermoy 1.

The stones present within this spread of burnt-mound material and the subsequent spreads consisted mainly of sandstone. Sandstone seems to be the preferred stone used in burnt-mound technologies. From experimental testing of shatter variation in different rock types, Victor Buckley concluded that drift-derived stones were most commonly used, with sedimentary rocks being preferred. Experimentation also showed that igneous and metamorphosed rocks did not scatter as easily and were, therefore, very reusable, showing little signs of being fire-affected (Buckley 1990, 172). Once the stones were removed from the trough, they were discarded close to the site, often forming a horseshoe-shaped mound, predominately around three sides of the trough and the nearby hearth. The *fulacht fiadh* at this site did not have the classic horseshoe-shaped mound although there is the possibility that the mound may have been ploughed out by later agricultural activity. The deposits were scattered to the north and east of the trough. There were ten deposits discarded from the trough, indicating that the trough was used on numerous occasions. Although hearths are an integral component of *fulachta fiadh*, the physical evidence for such features is not always recovered from sites, as is the case at this site, possibly because they are often not represented by any formal

structure/feature. Most hearths would probably have been placed close to the trough so as to allow for the easy transportation of the heated stones.

The trough at this site was orientated east/west in direction and was sub-rectangular in shape, similar to the *fulacht fiadh* excavated at Lisnagar Demesne 3, as part of this project. Sub-rectangular troughs have been found on many sites throughout the country. For example, at Derry, County Laois (Duffy 1996), excavation of three areas of *fulacht fiadh* revealed a pit-trough which was sub-rectangular in shape with dimensions of 2.3 x 1.5 x 0.4m deep. A similar trough was also located at Mell 5, County Louth (Campbell 2002), where removal of burnt-mound material revealed a number of pits, one of which was interpreted as a sub-rectangular trough that measured 2.6 x 1.8m x 0.6m deep. At Farrendreg, Dundalk, County Louth, excavation of two *fulachta fiadh* revealed two troughs, at least one of which was sub-rectangular in shape with dimensions of 3.6 x 1.2 x 0.8m (Bolger 2002).

This trough originally had four stakes at its base, representing the initial lining of the trough. Presumably these stakes supported the timber lining at the sides of the trough. However, the trough was later relined with timber planks at the base and when excavated this lining sealed the timber stakes. There were two posts along its eastern edge at the top, possibly representing a windbreak. There is evidence of the re-lining of sites at a small number of sites, for example at Killoran, Co Tipperary (O'Neill 1997). At that site, the trough originally had plank-lined sides and a number of pegs and timbers were lying at the base, probably associated with the original lining. The original lining was then interfered with when the later relining was being inserted. This relining included large ash planks set vertically on each side and an oak plank set horizontally on the top of each side. A plank lining was also added to the base (*ibid* 1997). Also, at Site 3, Cherrywood, Co Dublin the pit was re-dug at the same spot as a pre-existing pit but it did not remove all traces of the earlier example (O'Neill 1998). After the final use the lining in the trough at this site was burnt. This is highly unusual. At Site 26, Killoran, Co Tipperary, the initial lining was burnt, a uniform layer of charcoal and charred wood represented a burnt plank or roundwood lining. This was sealed by hard packing of re-deposited clay subsoil against the sides, probably representing a relining of the trough for a second use (Stevens 1998).

6. INTERPRETATION & RECONSTRUCTION

(with extracts from Danaher, E. (forthcoming) *Report of the Archaeological Excavation of Fulachta Fiadh at Ballinaspig More 7, Ballincollig, Co Cork.*)

The precise function of burnt-mounds is as yet not fully clear but it is generally regarded that *fulachta fiadh* were cooking sites where the process by which the meat was cooked involved the digging of a pit or trough which may have been clay- or timber-lined (Buckley 1991, 88). This trough originally had four stakes at its base, representing the initial lining of the trough. Presumably these stakes supported the timber lining at the sides of the trough. However, the trough was later relined with timber planks at the base and when excavated this lining sealed the timber stakes. There were two posts along its eastern edge at the top, possibly representing a windbreak. After the final use the lining in the trough at this site was burnt.

Oak planks may have been selected for use in the lining of the troughs. Oak would have been very suitable for this purpose as planks manufactured from oak trees are large and durable wooden planks. The oak was probably selected from mixed woodlands nearby.

The trough was filled with water while situated close by was a fire where stones were heated until red-hot. These stones were then placed into the water bringing it to the boil. In 1952, Professor M.J. O'Kelly demonstrated this process when a 4.5kg leg of mutton wrapped in straw was cooked in three hours forty minutes. After the meat was cooked, the burnt stones were removed from the trough and dumped on three sides of the hearth and trough, giving rise to the characteristic shape of the mound (Buckley 1991, 88).

Although the cooking hypothesis is the most widely accepted, it has come under increased scrutiny in more recent times due to the scarcity of food waste and artefacts associated with excavated *fulachta fiadh*. However, an increasing number of sites have produced animal bone such as Fahee South, County Clare (O'Drisceoil 1998). Alternative suggestions that have been put forward regarding their function include brewing, textile-processing and leather working. Diarmuid O'Drisceoil is of the opinion that there is little sustainable supporting evidence for these suggestions (O'Drisceoil 1998, 671-80).

A strong case for the interpretation of burnt mounds as prehistoric saunas or bathing places has been put forward by Barfield & Hodder (1997, 370-79). Examination of numerous excavated burnt-mounds led them to suggest that these sites were the remains of steam or sauna baths and they used ethnographical and historical evidence to support their argument. There are two main types of bath:

dry-heat sweat baths and baths which use water to produce steam. The use of hot stones is the most common method of heat production in sweat baths. Stones heated in an open fire can be brought into simple tented structures with wooden tongs or can be simply rolled in. An alternative method was to light a fire, heat the stones, remove the ashes and then erect a structure covered with skins above the hot stones (Barfield & Hodder 1987). These steam or sweat baths were likely to have had a practical, ritual and social function.

An examination of the archaeological, literary, experimental and ethnographic evidence for the possible uses of these sites would suggest cooking was the primary function while bathing by immersion or sweating may have been a secondary activity. While this suggests that the sites were multi-functional, some may have had a single role, i.e. their use either as a sauna or for cooking.

The terms *fulacht fiadh* and *fulacht fian* may have been in use in Ireland for over a millennium (O'Driscoll 1998 671-80). When translated, the word *fulacht* originally meant 'recess' or 'cavity' but later came to mean 'cooking place'. *Fiadh* can be translated as 'or the deer' or 'of the wild' while *fian* means 'or a roving band of hunters or warriors' or also 'of the Fianna or Fionn Mac Cumhail', mythical figures of Irish folklore. The above terms are referred to in ancient Irish law tracts literature prior to AD800. Of the many references, one in particular stands out. Geoffrey Keating in *The History of Ireland* written in the early seventeenth century, refers to the Fianna thus:

And it was their custom to send their attendants about noon with whatever they had killed in the mornings hunt to an appointed hill... and to kindle raging fires thereon, and put into them a large number of emery stone; and to dig two pits in the yellow clay of the moorland, and to put some of the meat on spits to roast before the fire; and to bind another portion of it with sugans in dry bundles, and to set it to boil in the larger of two pits, and keep plying them with the stones that were in the fire...until they were cooked. And these fires were so large that their sites are today in Ireland burnt to blackness and these are called Fulacht Fian by the peasantry. As to the Fian...each of them stripped off, and tied his shirt around his waist; and they ranged themselves the second pit...bathing their hair and washing their limbs, and removing their sweat, and then exercising their joints and muscles, thus ridding themselves of their fatigue.

Keating's description of the cooking pit and cooking process matches the archaeological evidence. From the text, it is clear that cooking is the primary function of the site but bathing also occurs. This dual function is referred to in other Irish texts. Keating's account sees the site being used by hunters but the large numbers of these sites, particularly in County Cork, and the density of their distribution cannot be explained by hunting alone. This would give us an abundance of evidence for hunting with

little evidence for more permanent settlement being present. While *fulachta fiadh* cannot be described as settlement sites, they may indicate settlement patterns. An extensive Bronze Age settlement site was excavated at Ballybrowney Lower 1, producing radiocarbon dates between 2580-830BC, making it contemporary with most of the *fulachta fiadh* excavated along the route.

7. ASSESSMENT OF ARCHAEOLOGICAL POTENTIAL AND SIGNIFICANCE

This site is considered to be of moderate significance. The research framework endeavoured to answer numerous questions about this site. We can conclude that the *fulacht fiadh* was constructed in the Late Bronze Age and the trough was initially timber lined using 4 stakes at the base to support the timber lining at the sides. It was later relined with timber planks at the base. There were two *fulachta fiadh* close to this site and in the same townland. At Fermoy 4, the *fulacht fiadh* was contemporary with this site and also had a timber plank lining while the *fulacht* at Fermoy 2 was Neolithic/Bronze Age in date. Three other *fulacht fiadh* along the route were broadly contemporary with this site at Ballynannahina and Lisnagar Demesne.

This site is also broadly contemporary with the extensive Bronze Age settlement excavated at Ballybrowney Lower 1. Rather than being the cooking places of roving hunters, this site may possibly be one of many “cooking sites” used by more settled communities. Large quantities of food were probably cooked within the trough at each episode and this suggests that this site like many others may have been used in communal, ceremonial or even ritual cooking rather than in everyday preparation for small groups (O’Drisceoil 1998).

8. CONCLUSION

Archaeological testing in advance of the N8 Rathcormac to Fermoy revealed a large spread of burnt stones and charcoal-rich soil at Fermoy, County Cork. This site was subsequently excavated, revealing a trough and associated burnt spreads. The sub-rectangular trough originally had four stakes at its base, representing the initial lining of the trough. Presumably these stakes supported the timber lining at the sides of the trough. However, the trough was later relined with timber planks at the base and when excavated this lining sealed the timber stakes. The burnt remnants of the second timber lining within the trough produced a radiocarbon date of 1190-800BC. There were two postholes visible along the eastern side of the trough and they probably represent two posts that supported a

windbreak. The trough was filled with water from the stream and heated sandstone was added to boil the water. After each boiling the debris was removed from the trough and deposited to the east and south of it. There are a maximum of ten deposits discarded at this site. After use, the timber lining at the base of the trough was burnt and the trough was filled in and abandoned.

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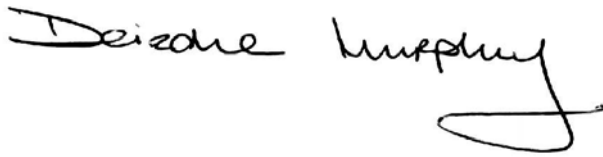
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Topographical Files of the National Museum of Ireland, Kildare Street, Dublin 2.

Signed:

A handwritten signature in black ink that reads "Deirdre Murphy". The signature is written in a cursive style with a large, stylized 'D' and a long, sweeping tail on the 'y'.

Deirdre Murphy

Archaeologist

10. APPENDECES

**10.1 SPECIES IDENTIFICATION
OF CHARCOAL SAMPLES FROM
Excavations at Fermoy 1, Co Cork**

03E1465

ELLEN OCARROLL

May 2005

1. INTRODUCTION

Three charcoal samples were submitted for analysis. The charcoal was excavated from a *fulacht fiadh* which consisting of a trough which may have had four stakes at its base and was timber lined with two posts along its eastern edge. The charcoal samples were retrieved from the trough deposits **C12** and from two associated spreads **C4** and **C5**. The charcoal was sent for species identification prior to ^{14}C dating and also to give an indication of the range of tree species, which grew in the area. Charcoal and wood analyses may also provide information on the utilization of certain species for various functions. Wood used for fuel at pre-historic sites would generally have been sourced at locations close to the site. Therefore species identifications may, but do not necessarily, reflect the composition of the local woodlands.

2. METHODS

The process for identifying wood, whether it is charred, dried or waterlogged is carried out by comparing the anatomical structure of wood samples with known comparative material or keys (Schweingruber 1990). The identification of charcoal material involves breaking the charcoal piece so that a clean section of the wood can be obtained. This charcoal is then identified to species under an Olympus SZ3060 zoom stereomicroscope. By close examination of the microanatomical features of the samples the species were determined. The diagnostic features used for the identification of charcoal are micro-structural characteristics such as the vessels and their arrangement, the size and arrangement of rays, vessel pit arrangement and also the type of perforation plates.

3. RESULTS

Table 1: Results from charcoal identifications

Site no. & site type	Context no.	Sample no.	Species type	Weight and Comment
Fermoy 1 <i>Fulacht fiadh</i>	C12, trough deposit	5	Mainly clay and small flecks of oak charcoal	50g
Fermoy 1 <i>Fulacht fiadh</i>	C4, spread	1	Oak	48g
Fermoy 1 <i>Fulacht fiadh</i>	C5, spread	3	Oak	10g. Branch like in nature.

4. DISCUSSION

Oak (*Quercus sp.*) was identified from the charcoal remains associated with the lining of the trough and the two spreads. Throughout all periods of prehistory and history oak has been used for structural timbers. Oak troughs associated with *fulacht fiadh* have been excavated and identified at Lisheen, Co. Tipperary (Gowen, M. 2005), Monanny 2, Co. Monaghan (IAC stratigraphic reports) and at a nearby site Fermoy 4 (03E1639). Oak also has unique properties of durability and strength. Sessile oak (*Quercus petraea*) and pedunculate oak (*Quercus robur*) are both native and common to Ireland. The wood of these species cannot be differentiated based on its microstructure. Pendunculate oak is found on heavy clays and loams particularly where the soil is of alkaline pH. Sessile oak is found on acid soils often in pure stands and although it thrives on well-drained soils it is also tolerant of flooding (Beckett 1979, 40-41). Both species of oak grow to be very large trees (30-40m) and can live to an age of about 400 years. The oak (*Quercus spp.*) identified suggests that there was a supply of oak in the surrounding environment at Fermoy 1.

5. CONCLUSIONS

Oak planks may have been selected for use in the lining of the troughs. Oak would have been very suitable for this purpose as planks manufactured from oak

trees are large and durable wooden planks. The oak spreads may be extraneous material from the trough overspill. The oak was probably selected from mixed woodlands nearby.

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10.2 Radiocarbon Results for Samples 03E1465C4S1 & 03E1465C12S5

Beta Analytic Radiocarbon Dating Laboratory

4985 S.W. 74th Court, Miami, Florida 33155. Tel: (305)6675167. Fax: (305)6630964. Email: beta@radiocarbon.com

Ms. Rachel Sloane

Report Date: 3/1/2005

Archaeological Consultancy Services, Ltd.

Material Received: 1/25/2005

Sample Data	Measured Radiocarbon Age	¹³ C/ ¹² C Ratio	Conventional Radiocarbon Age
Beta - 201095 SAMPLE : 03E1465C4S1 ANALYSIS : Radiometric-Standard delivery MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal BC 820 to 410 (Cal BP 2760 to 2360)	2530 +/- 70 BP	-26.1 o/oo	2520 +/- 70 BP
Beta - 201096 SAMPLE : 03E1465C12S5 ANALYSIS : Radiometric-Standard delivery (with extended counting) MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid 2 SIGMA CALIBRATION : Cal BC 1190 to 800 (Cal BP 3140 to 2750)	2800 +/- 90 BP	-26.1 o/oo	2780 +/- 90 BP

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-26.1:lab. mult=1)

Laboratory number: Beta-201095

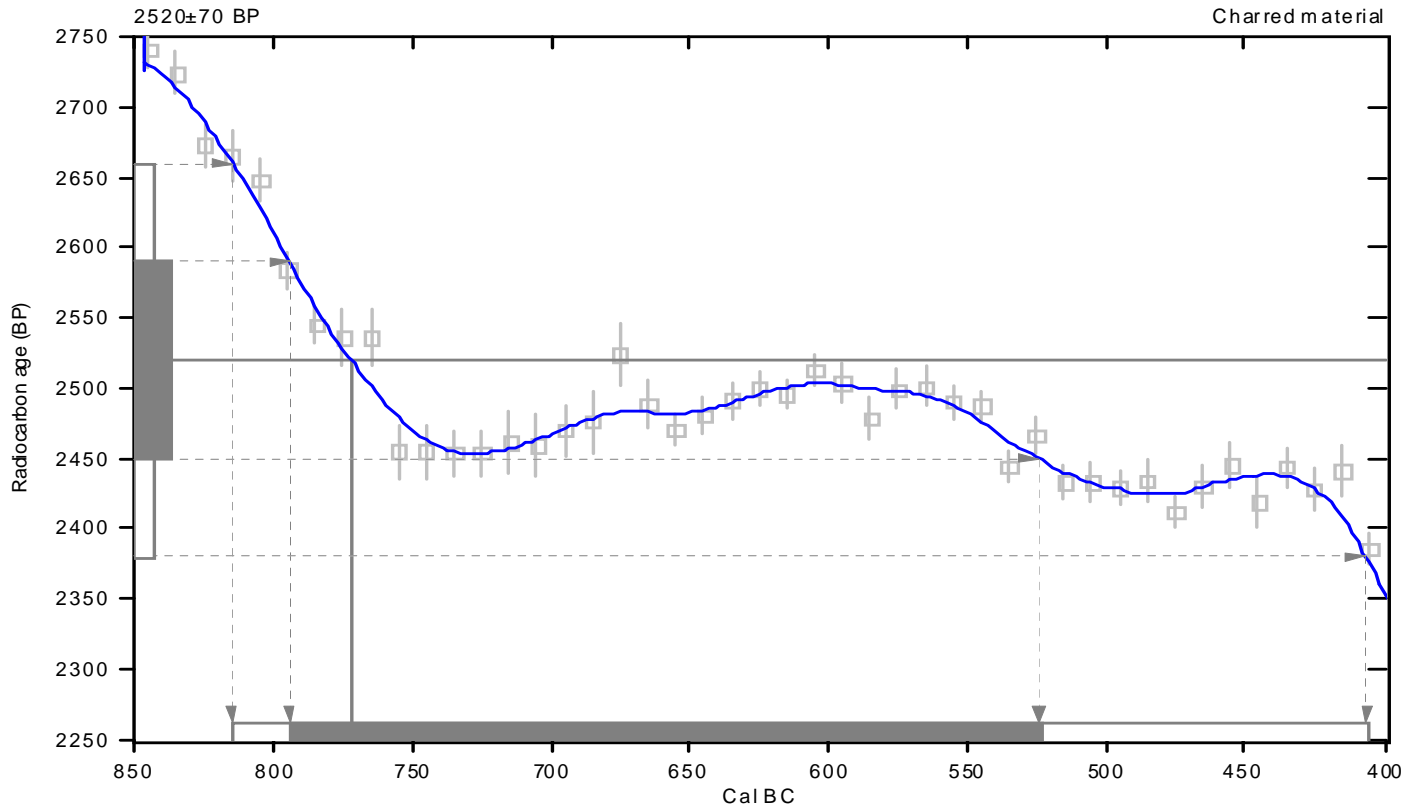
Conventional radiocarbon age: 2520±70 BP

2 Sigma calibrated result: Cal BC 820 to 410 (Cal BP 2760 to 2360)
(95% probability)

Intercept data

Intercept of radiocarbon age
 with calibration curve: Cal BC 770 (Cal BP 2720)

1 Sigma calibrated result: Cal BC 790 to 520 (Cal BP 2740 to 2470)
(68% probability)



References:

Database used

INTCAL98

Calibration Database

Editorial Comment

Stuiver, M., van der Plicht, H., 1998, *Radiocarbon* 40(3), pxi-xiii

INTCAL98 Radiocarbon Age Calibration

Stuiver, M., et. al., 1998, *Radiocarbon* 40(3), p1041-1083

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, *Radiocarbon* 35(2), p317-322

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-26.1:lab. mult=1)

Laboratory number: Beta-201096

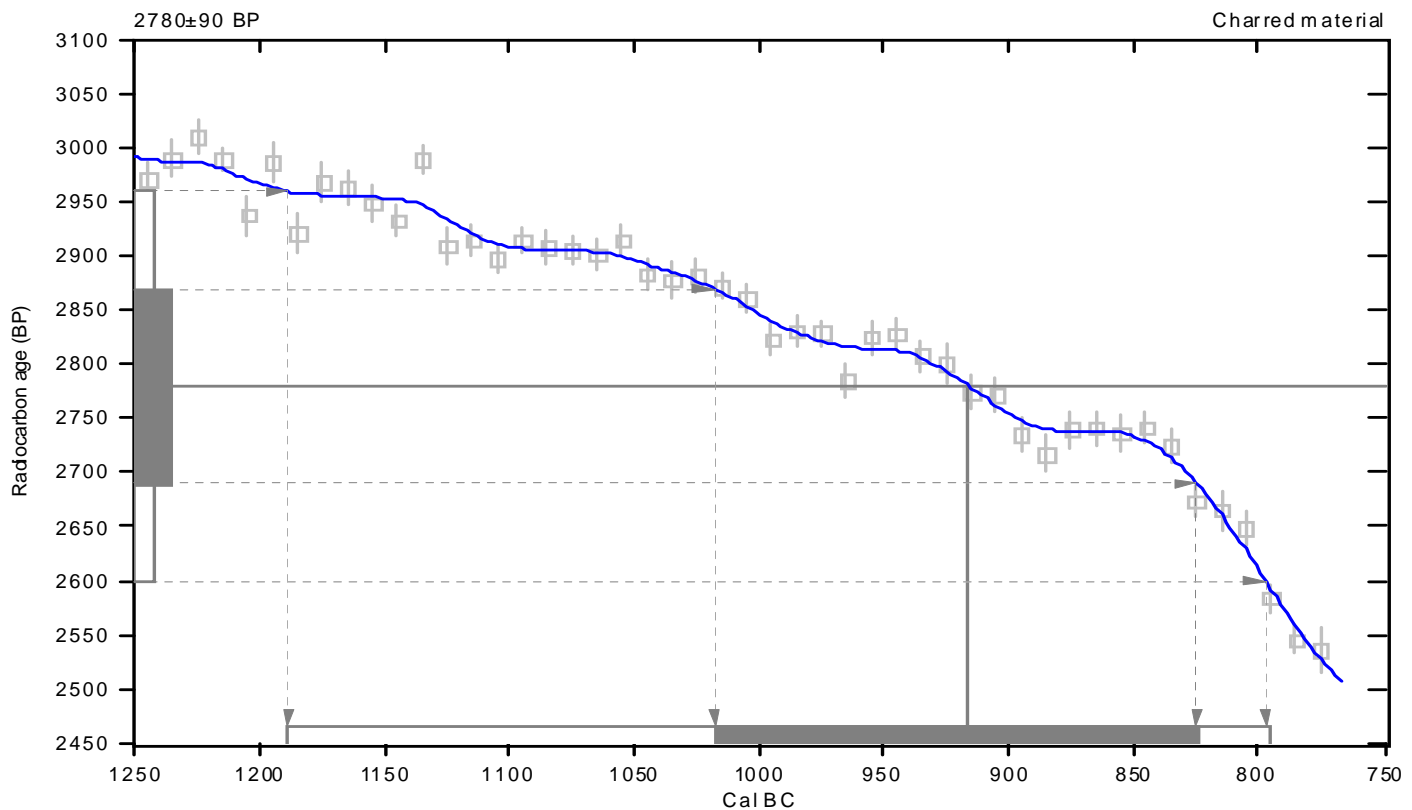
Conventional radiocarbon age: 2780±90 BP

2 Sigma calibrated result: Cal BC 1190 to 800 (Cal BP 3140 to 2750)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal BC 920 (Cal BP 2870)

1 Sigma calibrated result: Cal BC 1020 to 820 (Cal BP 2970 to 2780)
(68% probability)



References:

Database used

INTCAL98

Calibration Database

Editorial Comment

Stuiver, M., van der Plicht, H., 1998, *Radiocarbon* 40(3), pxi-xiii

INTCAL98 Radiocarbon Age Calibration

Stuiver, M., et. al., 1998, *Radiocarbon* 40(3), p1041-1083

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, *Radiocarbon* 35(2), p317-322

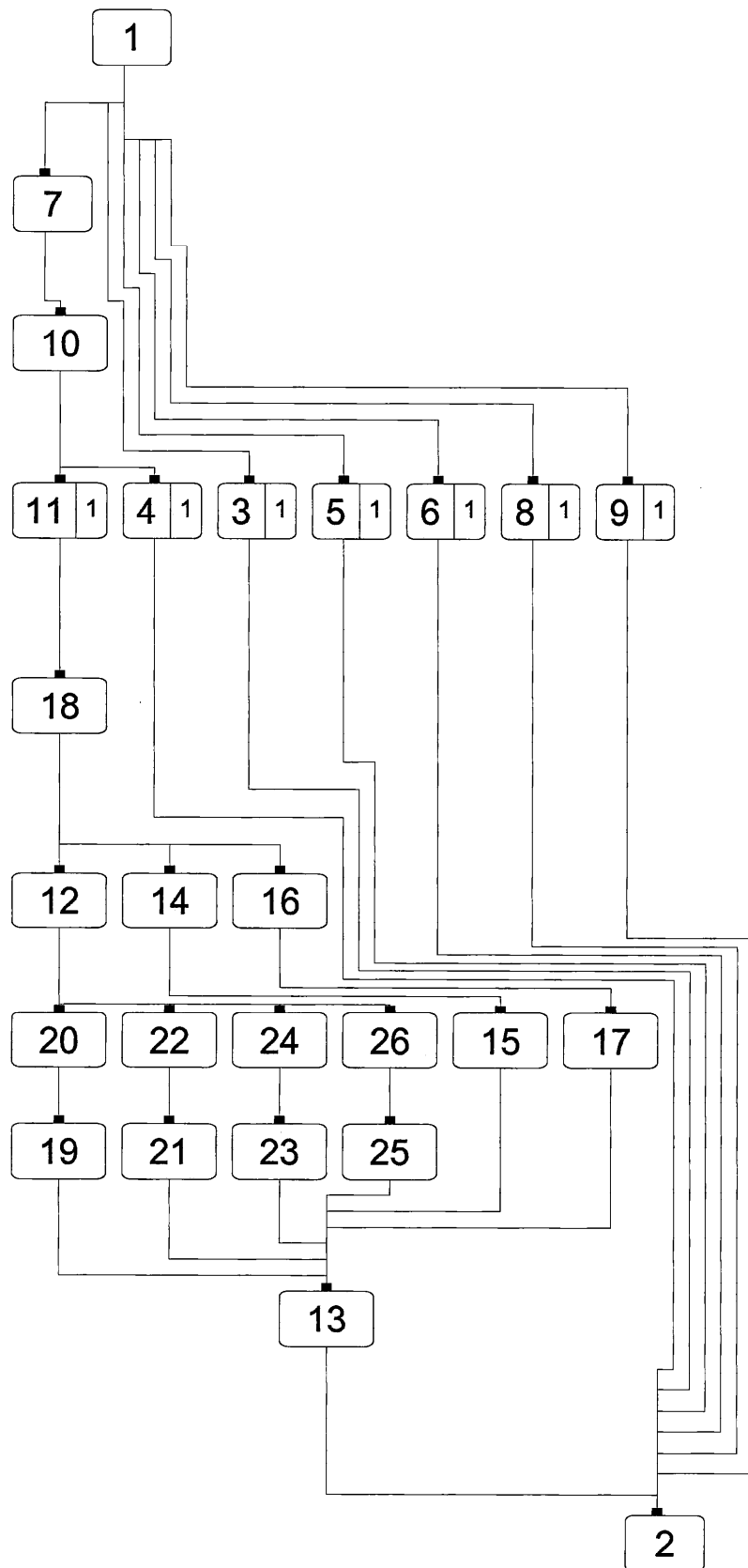
10.3 ARCHIVE CONTENT

Table: Site Archive (Basic) Summary			
Site Name: Fermoy 1		Licence No.:03E1465	
Type	Description	Quantity	Notes
Contexts	Validated contexts from excavation	18	All features have been checked and cross-referenced.
Plans	'A4' 1:20 (no. of sheets)	0	
	'A2' 1:20 (no. of sheets)	2	These include pre-ex and post-ex plans of the site. The pre ex-plan of the site is 1:50
	'A1' 1:20 (no. of sheets)	0	-----
Sections	'A4' 1:10 (no. of sheets)	1	C4, C5, C6 & C7 section drawings
Matrices		1	Full site matrix (Paper copy only). Checked and cross-referenced.
Photographs		Colour print (22) Colour slide (0) B/W (0)	
Registers	Plan Register	1	All Registers have been checked and cross-referenced.
	Photographic Register	1	
	Finds Register,	1	
	Sample Register, Etc..	1	
Diaries	Director's Diary	1	All Diaries have been checked and cross-referenced.
	Supervisor's Diaries	1	

10.4 Summary of fulachta fiadh on N8 Rathcormac-Fermoy Bypass Route

Townland	Fermoy 1	Fermoy 2 3 fulachta fiadh	Fermoy 4	Corrin 4	Corrin 6 2 fulachta fiadh	Kilbrien 1	Lisnagar Demesne 2	Lisnagar Demesne 3	Scartbarry 1	Ballynahina
Licence No	03E1465	03E0979	03E1639	03E1463	03E1636	03E1088	03E1461	03E1459	03E1438	03E1186
NGR (east/north)	18228/98526	182185/0983 34	182217/0975 05	181355/09 5687	181382/096 126	179899/927 67	179449/91657	179470/91702	178392/08755 3	180464/93880
C14 date	1190-800 Cal BC	Range from 3510-1400 Cal BC	830-780 Cal BC		2550- 1040Cal BC	1760-1420 Cal BC	1950- 1670 Cal BC	1140-920 Cal BC	1940-920 Cal BC	910-370 Cal BC
Trough	Yes	4 troughs	Yes	Yes	3 troughs	Yes	Yes	Yes	Yes	Yes
Hearth	No	Yes	Yes	No	No	No	No	No	Yes	No
Trough lining	Lined and relined with timber	1 was clay lined, the rest had none surviving	Timber lined	None surviving	1 was clay lined, the other had none surviving	None surviving	Compact clay lining	Stone-lined	Stone construction	Possibly originally stone lined
Water source (seepage/stream/ spring etc.)	Stream	Spring	Seepage	Seepage	Seepage	Seepage	Stream	Stream	Seepage	Stream
Windbreak structure	No	Possibly	No	No	No	No	Yes, 4 stakeholes and a posthole south of trough	No	Yes	No
Trough canopy structure	No	Possibly	No	No	No	Possibly, 2 postholes, one at NW corner, one at NE corner	No	No	Yes	No
Other related structures/features	None	Pits and stakeholes	2 pits	Pits & stakeholes	No	None	Remains of 28 stakeholes.	None	Pits, postholes, slot trench	Pits and 2 possible troughs

10.5: Matrix of Fermoy 1



10.6 DISSEMINATION STRATEGY

The dissemination strategy will include publication of report and presentations of archaeological material.

Publications

The dissemination strategy will involve a variety of publications and the level of published detail proposed will vary according to each publication. Work will commence on articles for publication from March 2005 and it is envisaged that this material will be published in 2005. The right of Cork County Council (*the Council*) to fulfil some or all of the stated publication requirements, either in part or in full, should it so decide will be acknowledged. Copyright will be assigned to the Council in order that it may make such information available to the public. All publications will make appropriate references to the road scheme and credit the sources of funding (NDP, via NRA and Cork County Council NRDO) including the use of official logos.

Archaeology Ireland

The excavation results will be submitted for publication in Archaeology Ireland, either as an overview or as a thematic account. It is intended that this article will be published in either the spring or summer (2005) edition.

Cork Historical & Archaeological Journal

A comprehensive account of the major excavation results will be submitted for publication in the Cork Historical & Archaeological Journal. A gazetteer of the minor excavations (with accompanying NGRs & C14 dates) will be included. Editors of this journal will be approached in March 2005 with a view to agreeing a date for publication.

Journal of Irish Archaeology

A comprehensive thematic account of selected major excavations results will be submitted for publication in the Journal of Irish Archaeology. Likewise editors of this journal will be approached in March 2005 with a view to agreeing dates for publication.

Full technical Report

A full and comprehensive excavation report of all excavations results (including all specialist and supplementary reports) will be submitted in digital format for electronic publication in March/April 2005.

Popular Report

It is proposed that a popular account of the excavation results be published in an appropriate format. Currently, this is likely to be an NRA-sponsored publication aimed at presenting a well-illustrated and detailed overview/interpretation of the results. A provisional date of June 2005 is suggested for this publication, however this is subject to agreement with the Project Archaeologist.

Presentations

A level of public presentation is proposed for the N8 Rathcormac/Fermoy Bypass archaeological findings. Preparation for such presentations will be conducted in March 2005 and it is suggested that presentations can be delivered anytime with prior notice from April 2005. The right of Cork County Council (*the Council*) to fulfil some or all of the stated public presentation requirements, either in part or in full, should it so decide will be acknowledged. Copyright will be assigned to the Council in order that it may make such information available to the public. All public presentations will make appropriate references to the road scheme and credit the sources of funding (NDP, via NRA and Cork County Council NRDO), including the use of official logos.

Public Presentation

A comprehensive overview of all the excavations results will be presented by way of an appropriate public presentation. Such a presentation will (where permitted by the National Museum of Ireland) include the presentation of a reasonable sample of the excavated artefacts. Additional public presentations, where appropriate, will be given as a matter of public interest.

Institute of Archaeologists of Ireland (IAI)

A comprehensive academic overview of all the excavations results be presented to the Institute of Archaeologists of Ireland. It is suggested that a presentation will be delivered at the Autumn Conference 2005.

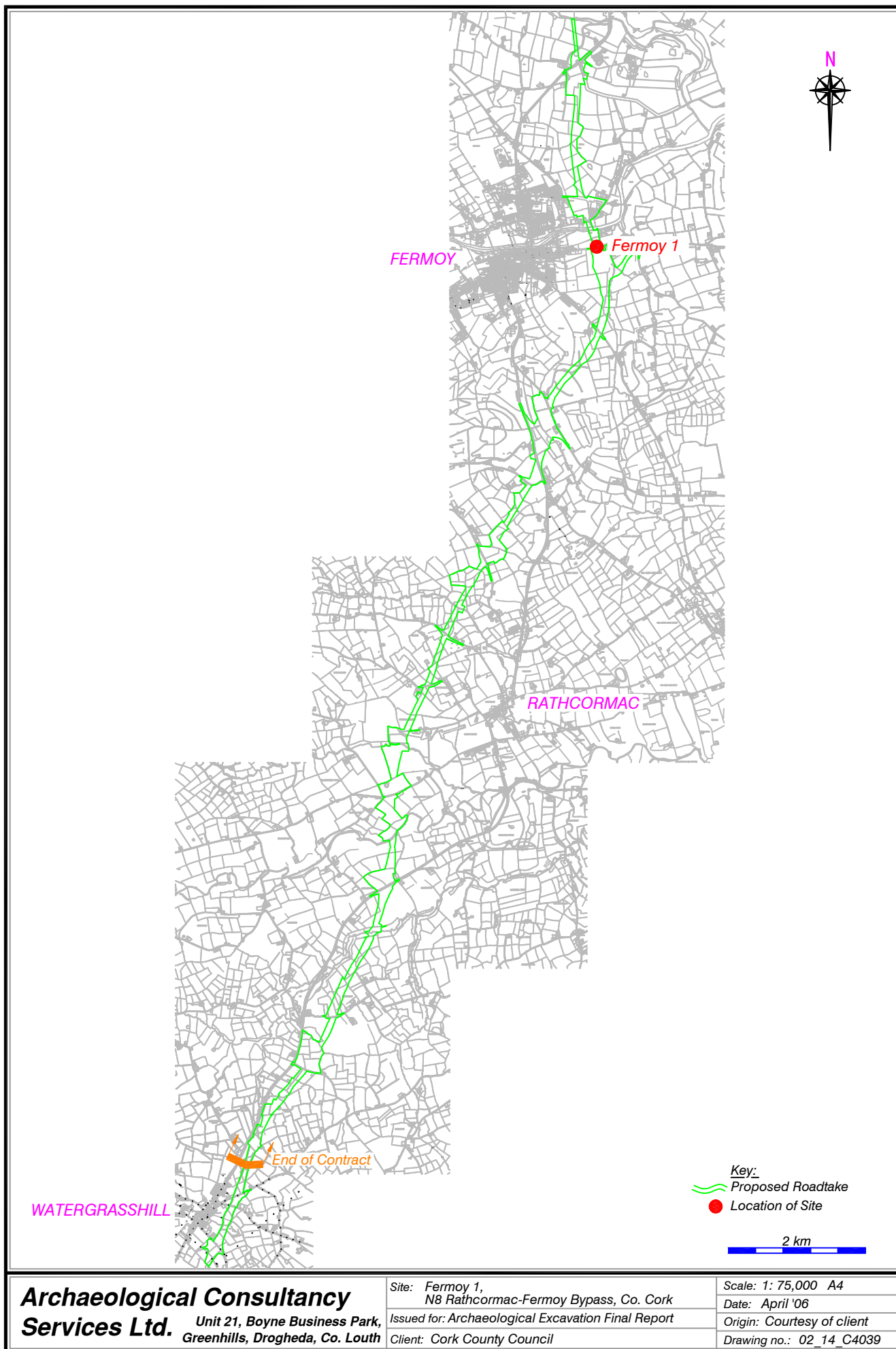
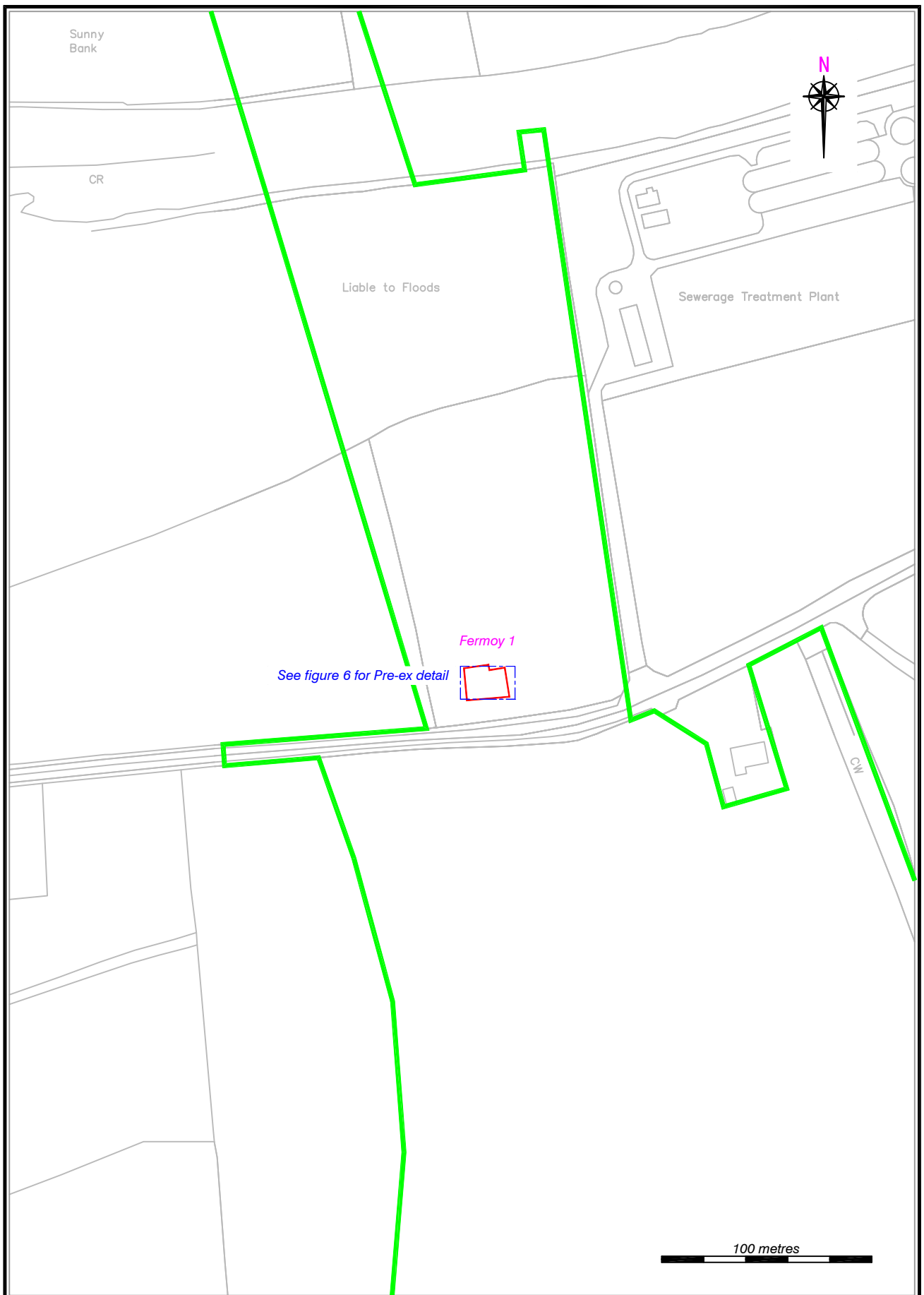


Figure 1: Location of site in relation to proposed roadway



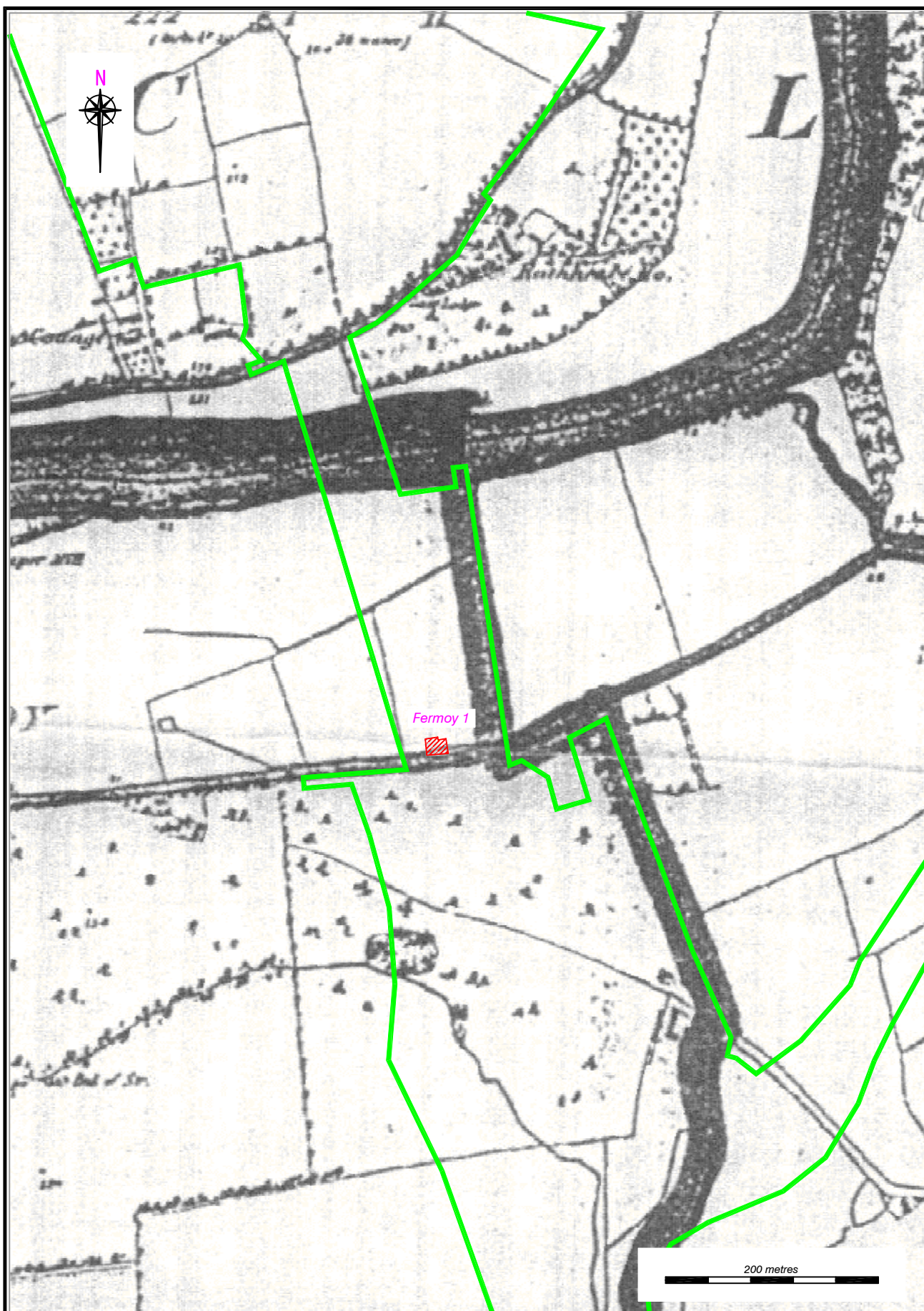
**Archaeological Consultancy
Services Ltd.**

Unit 21, Boyne Business Park,
Greenhills, Drogheda, Co. Louth

Site: Fermoy 1,
N8 Rathcormac-Fermoy Bypass, Co. Cork
Issued for: Archaeological Excavation Final Report
Client: Cork County Council

Scale: 1:2,500 A4
Date: Apr '06
Origin: Courtesy of client / ACS
Drawing no.: 02_14_C4040

Figure 2: Site location showing limit of excavation



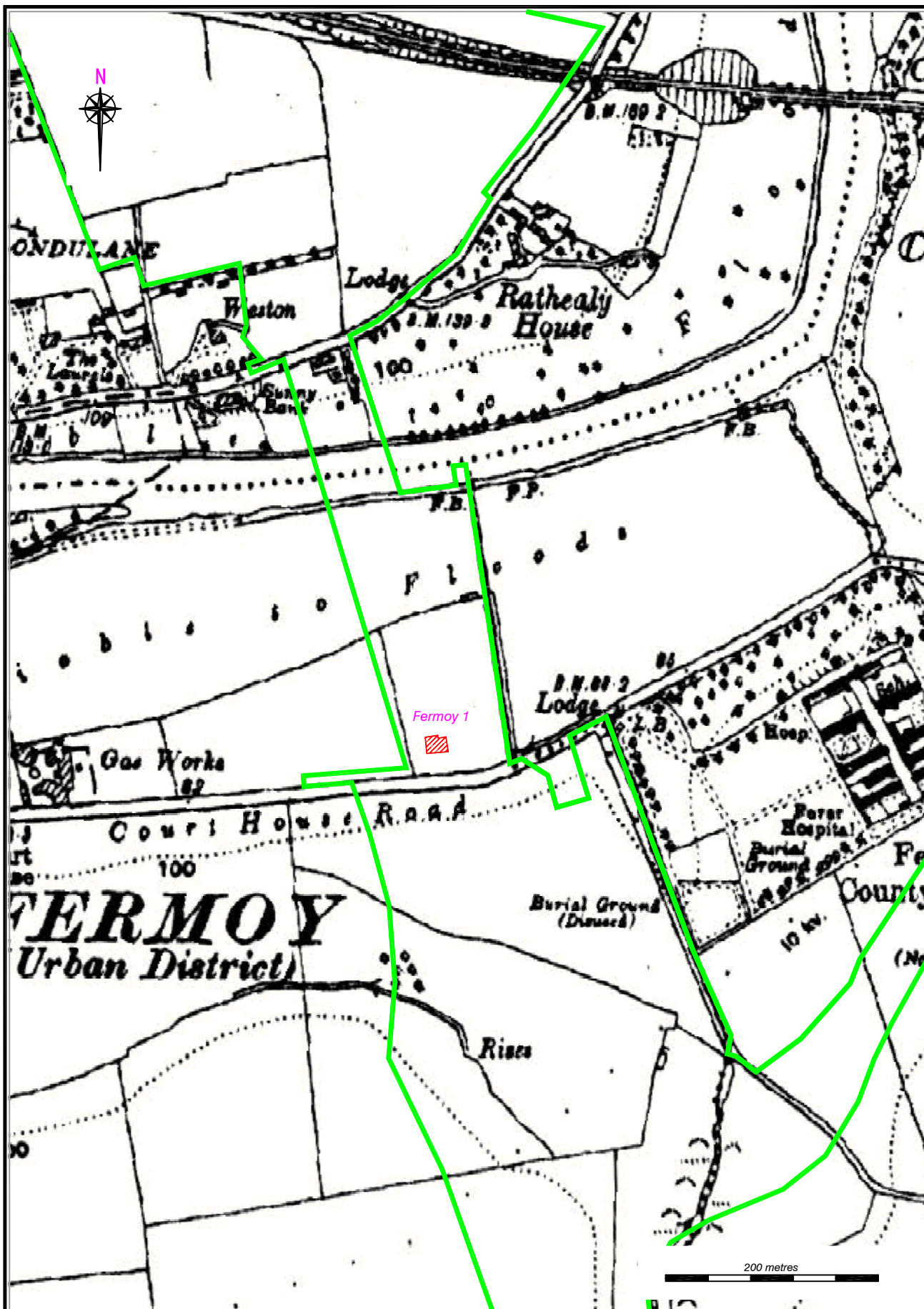
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Client: Cork County Council

Scale: 1:5,000 A4
Date: Apr '06
Origin: OSi 1st edition sheet 35
Drawing no.: 02_14_C4041

Figure 3: O.S. six-inch Sheet 35 1841-44



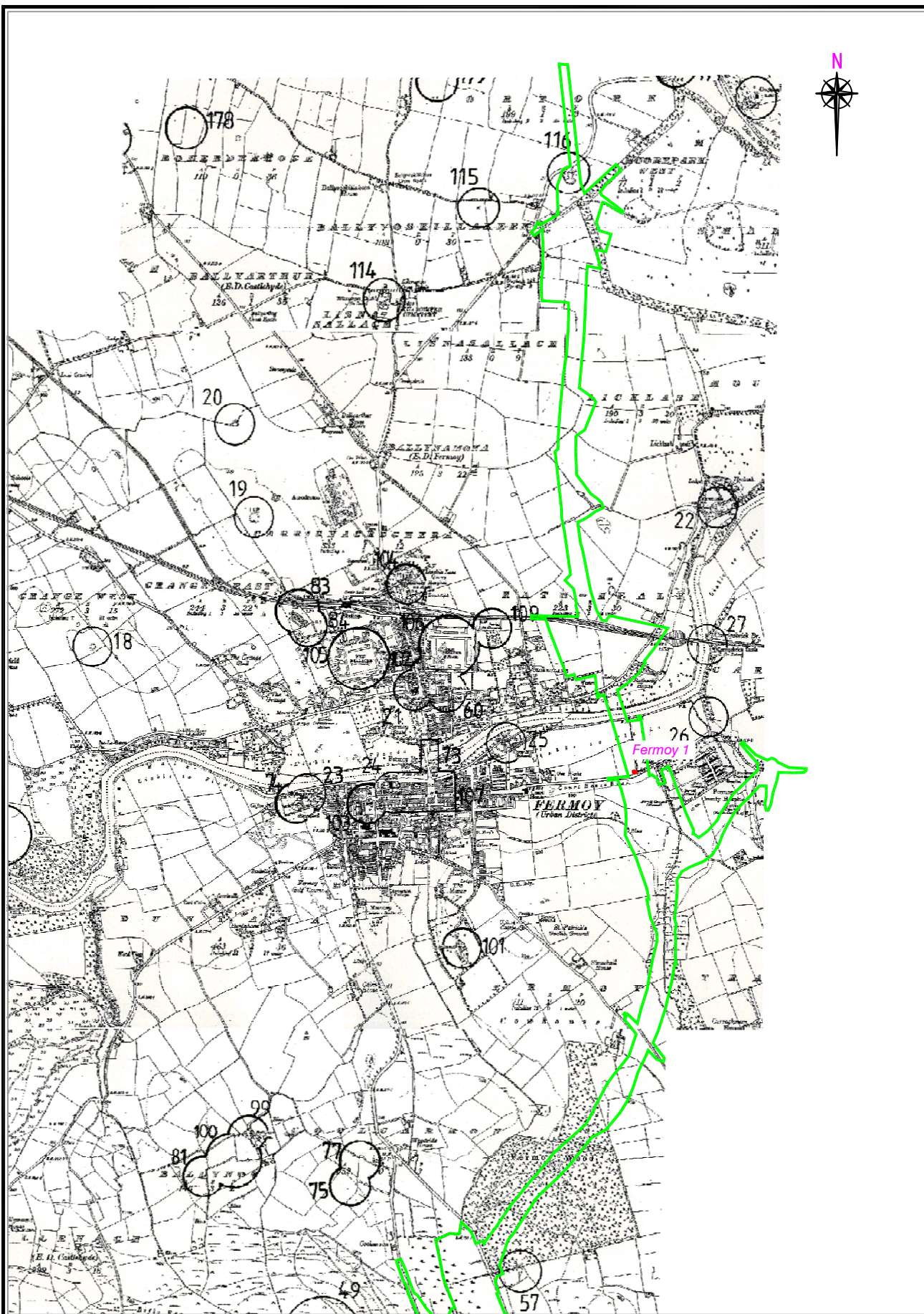
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Scale: 1:5,000 A4
Date: Apr '06
Origin: OSi 1st edition sheet 35
Drawing no.: 02_14_C4041

Figure 4: O.S. six-inch Sheet 35 1935



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Client: Cork County Council

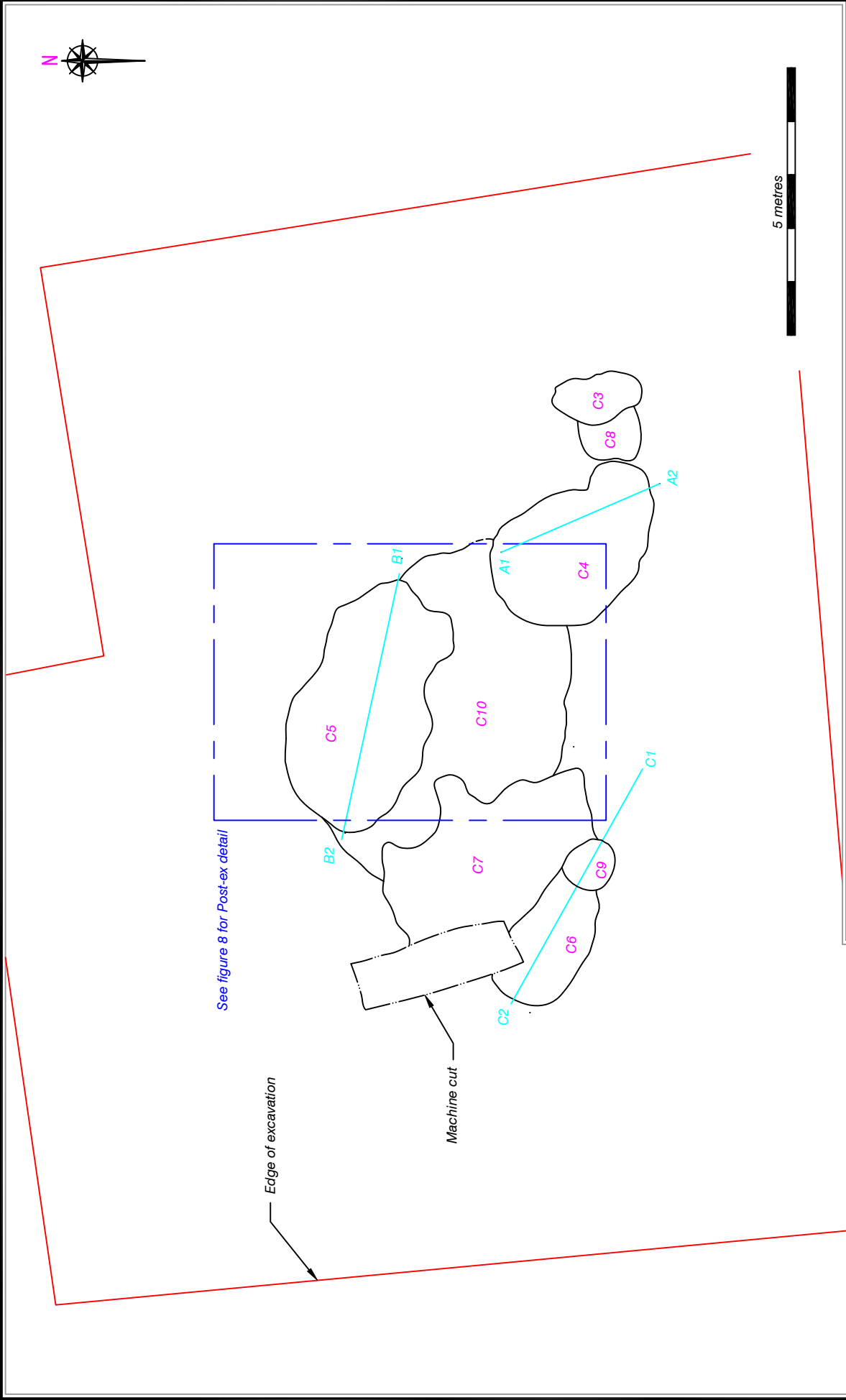
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Date: Apr '06

Origin: OSi RMP sheet 35

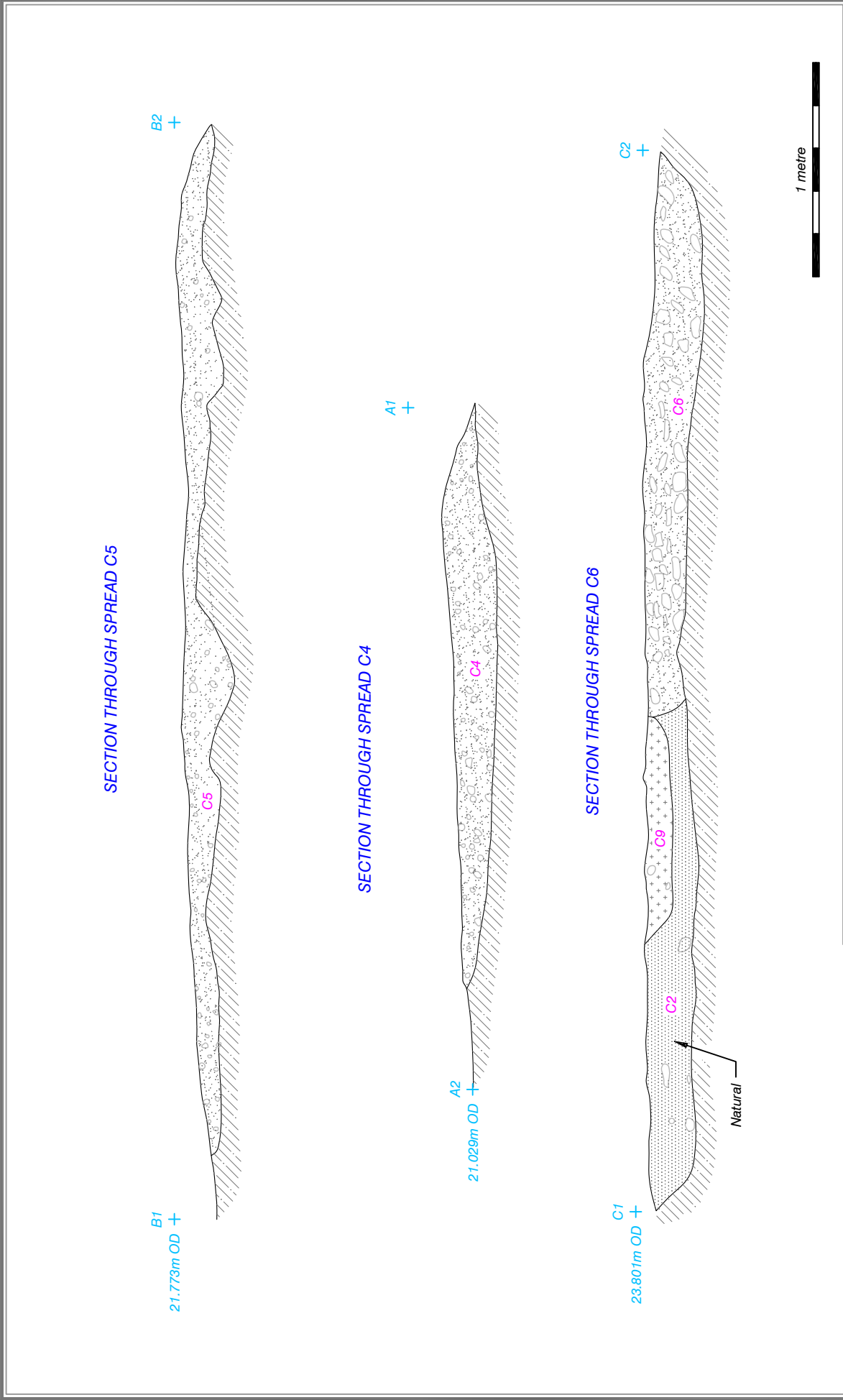
Drawing no.: 02_14_C4043

Figure 5: Location of local RMP sites



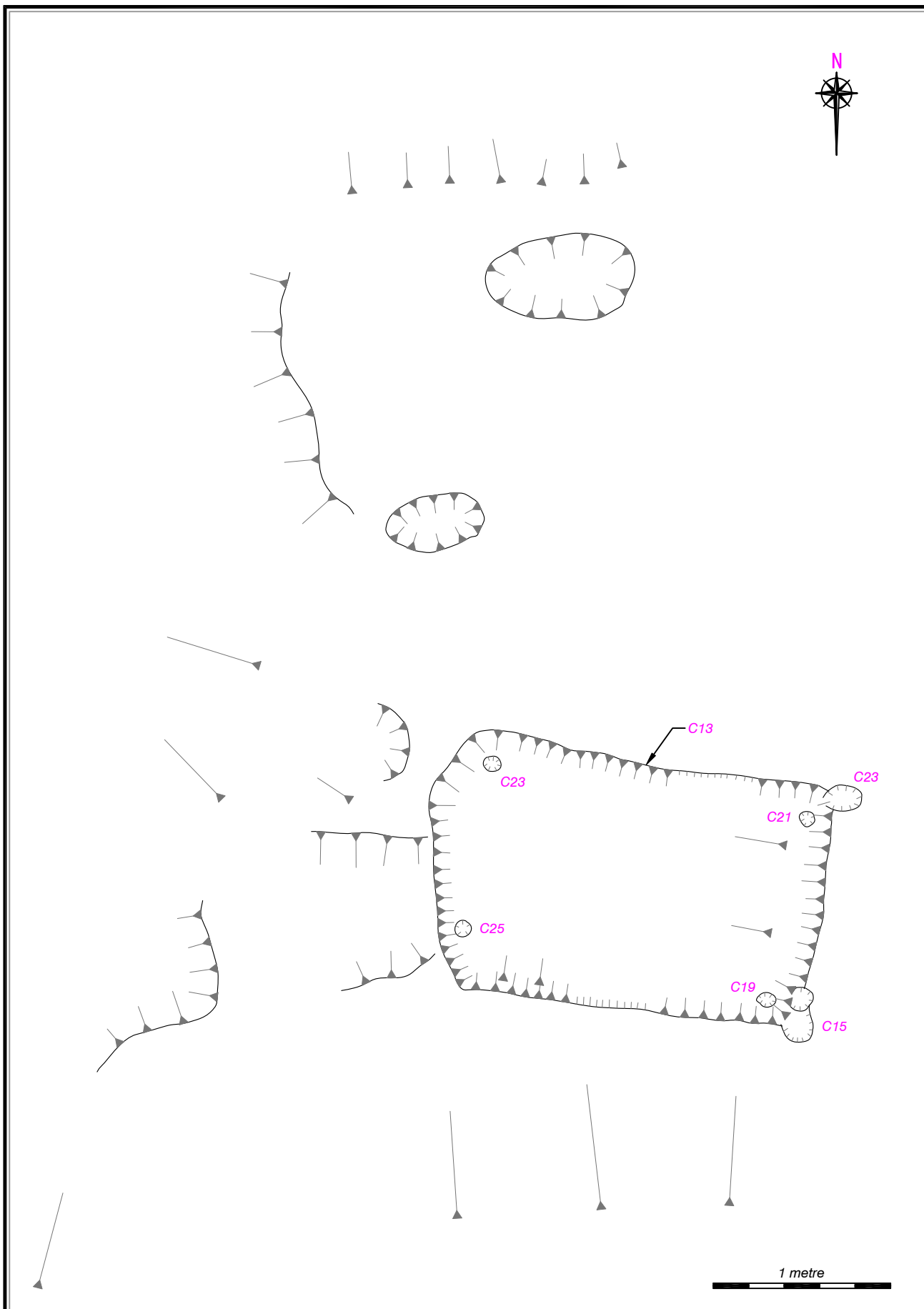
Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth		Site: Fermoy 1 N8 Rathcormac-Fermoy Bypass, Co. Cork	Scale: 1:100 A4
		Issued for: Archaeological Excavation Final Report	Date: Apr '06
		Client: Cork County Council	Origin: ACS Ltd
			Drawing no.: 02_14_C4115

Figure 6: Pre-ex plan of site



Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth		Site: Fermoy 1 N8 Rathcormac-Fermoy Bypass, Co. Cork	Scale: 1:25 A4
		Issued for: Archaeological Excavation Final Report	Date: Apr '06
		Client: Cork County Council	Origin: ACS Ltd
			Drawing no.: 02_14_C4116

Figure 7: Sections through fulacht spreads



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Issued for: Archaeological Excavation Final Report
Client: Cork County Council

Scale: 1:30 A4
Date: Apr '06
Origin: ACS Ltd
Drawing no.: 02_14_C4117

Figure 8: Post-ex plan of site



Plate 1: General overview of site, looking north. (02_14_CPI329:10)



Plate 2: Pre-ex of site, looking east. (02_14_CPI323:11)



Plate 3: Pre-ex of site, looking south. (02_14_CPI323:17)



Plate 4: Section through spread C5, looking south. (02_14_CPI325:21)



Plate 5: Section through spread C3, looking south. (02_14_CP1325:15)



Plate 6: Post-ex of trough C13, looking west. (02_14_CP1329:12)



Plate 7: Post-ex of trough C13, looking south. (02_14_CP1329:15)



Plate 8: Post-ex of site, looking southeast. (02_14_CP1329:9)