Preliminary Report Rathbride Road Phase 2, Kildare

MCGLADE & RUDDY 1/02/2022 210E0261 KILDARE CO. CO. 20/159

archaeology plan
HERITAGE SOLUTIONS

SITE NAME

Phase 2, Rathbride Road, Kildare Town, Co. Kildare

CLIENT

Kelland Homes, Russell Square Centre, Unit 5 Fortunestown Way, Tallaght, Dublin 24

LICENCE

21E0261

PLANNING

Kildare Co. Co. Planning Ref. 20/159

REPORT AUTHOR

Steven McGlade BA MIAI
Siobhain Ruddy BA

DATE

1st February 2022

ABBREVIATIONS USED

DAHG	Department of Arts, Heritage and the Gaeltacht
NMI	National Museum of Ireland
NMS	National Monuments Service
OS	Ordnance Survey
RMP	Record of Monuments and Places
NIAH	National Inventory of Architectural Heritage
LAP	Local Area Plan

Table of contents

Section 1 Introduction

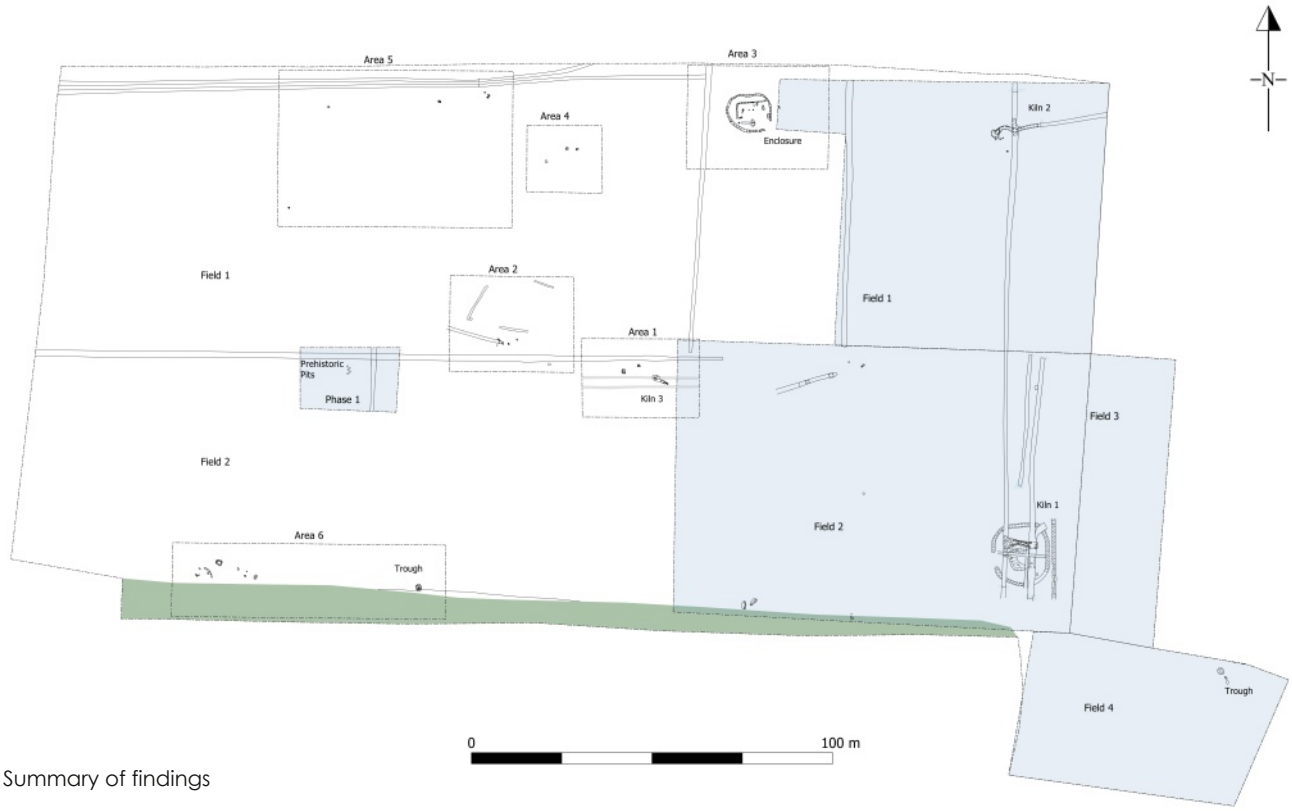
Report summary

Archaeological monitoring and excavation took place at the site of the Black Millers Hill residential development in two phases and under two separate archaeological licences.

The initial development proposal encompassed the entire site, however, development occurred in two phases. The east side of the site was developed first and archaeological excavation took place in this area under the licence number 17E0125. Neolithic activity at the site was represented by pits containing fragments of a carinated bowl and a saddle quern. A trough and small spreads of burnt mound material represented Bronze Age archaeology. Two probably early medieval large stone lined kilns were also uncovered, one of which was situated within an enclosure with evidence of an associated structure. These were truncated by later medieval field ditches.

This report addresses archaeological monitoring and excavation carried out during the summer of 2021 on the western side of the development site for Phase 2. Two prehistoric pits among a cluster of seven potentially represent the earliest activity on the site in Phase 2. One pit contained a sherd of prehistoric pottery and a retouched scraper. The second pit contained a small convex, or thumbnail, scraper.

The trough of a fulacht fiadh was also uncovered although the associated burnt mound was absent. The trough had been clay lined and was similar in dimensions to that excavated in Phase 1.



Summary of findings

A small metalworking furnace was uncovered in an isolated position near the western extent of the site. The pit was full of slag and appeared to have been used for smelting rather than smithing. This type of furnace appears in the Irish archaeological record at the time of the early Iron Age, c. 800BC, and continued in use throughout the medieval eras.

A truncated cereal kiln represents the agricultural nature of the site. A fragment of a granite grinding stone or quern was located on the side of the firing chamber of the kiln near the surface. It may have been abandoned or dumped there after becoming redundant.

A penannular enclosure that had been identified and partially investigated during Phase 1 was fully exposed for excavation during Phase 2 and the interior was found to have numerous postholes and an angular slot trench denoting a structure.

Site Location

The site is located at the edge of the residential development north of Kildare town, on the western side of the Rathbride Road. It is 1km north of the Archaeological Restraint Zone for the historic town of Kildare (KD022-029), and 250m southeast of the most westerly extent of The Curragh, an elevated plain housing a complex of 179 prehistoric monuments that date from the Neolithic into the Iron Age (Condit & Cooney 2005).

The site initially comprised of three rectangular fields and one small section of a rear garden. The eastern portion of the site was developed under a separate planning permission and was archaeologically resolved under a separate licence (17E0125). The Phase 2 portion of the site is bounded by fields to the north and west, by the modern residential development, Rathbride Abbey, to the south and by the Phase 1 lands, with Rathbride Road beyond to the east.

Fields 3 and 4 and the eastern ends of Fields 1 and 2 were archaeologically resolved during Phase 1 (17E0125). Archaeological monitoring and excavation of the western ends of Fields 1

Site location shown on Ordnance Survey Streetview (top), Discovery Series (centre) and Ordnance Survey 2011-2013 aerial imagery (bottom)

Layout of the proposed development site

and 2 are the subject of this report.

The site is located within a narrow strip of Kildare townland extending to the north of the town. The southern site boundary is formed by the townland boundary with Bishopsland while the northern site boundary is formed by the townland boundary with Cloghgarret Glebe.

Development and Planning

The proposed development site involves the construction of 74 No. dwellings comprised of a mix of 2, 3 and 4 bed houses (20/159). The proposed development is the second phase of a development that is currently under way (16/1227), forming the western portion of that development, and involves slight changes to the previously agreed layout for the development. Access to the proposed development will be from Rathbride Road via existing entrance previously permitted under Reg. Ref. 16/1227. The proposed development also includes all associated site development works, parking, open spaces, landscaping, drainage, infrastructural works etc. all on a site measuring circa 3.11 hectares.

The originally proposed development (Kildare County Council Refs. 07/910, 14/282 & 16/1227) comprised the construction of c. 100 dwellings in detached and semi-detached houses and apartments, a crèche and retail building. It also provided for internal roads, landscaping, open spaces, car parking, undergrounding of overhead ESB wires on site and provision of new pylons, with access off the Rathbride Road.

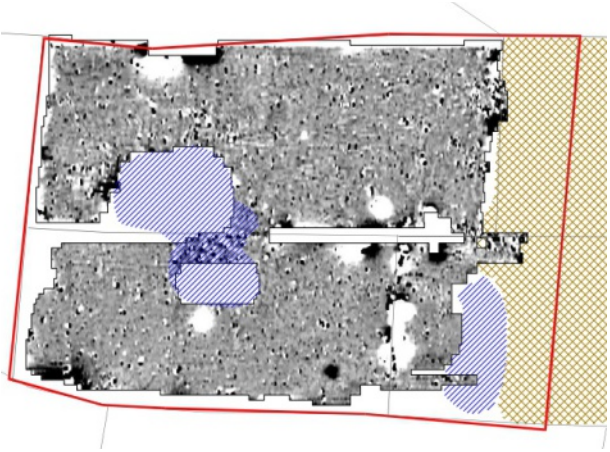
Earlier planning applications 07/910 and 14/282 had no archaeological conditions attached. A Kildare County Council planning report (Daly, dated 11/7/14) noted that the development will not affect SAC, Architectural Conservation Areas, Recorded Monuments or Protected Structures and that an EIS is not applicable.

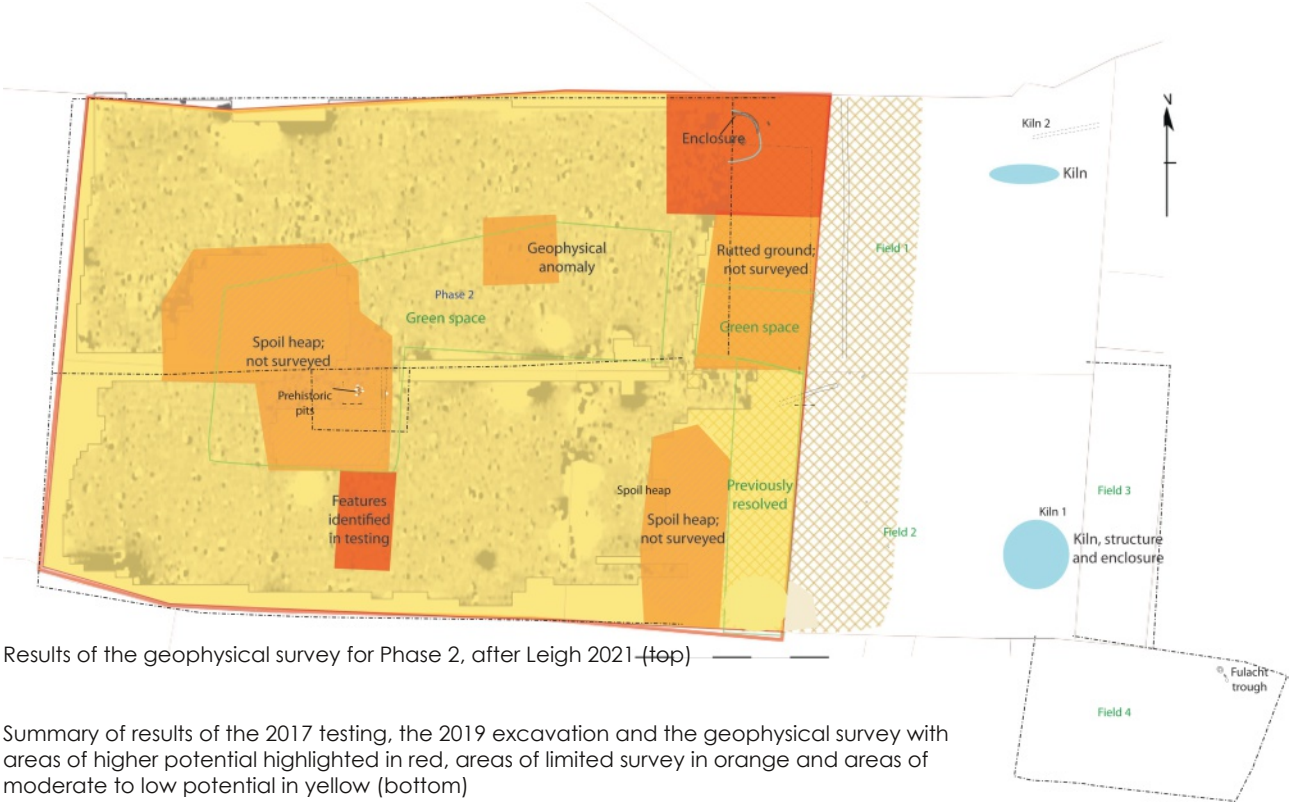
The planning application (16/1227) under which the works for Phase 1 were carried out concerned amendments to the western half of the scheme. A Request for Further Information on this application required archaeological test-trenching. A testing programme was conducted in 2017 (Giacometti 2017) which covered the entire scheme (07/910 and 14/282). During the

testing programme some archaeological features were identified and archaeological monitoring and excavation was subsequently recommended. The development was subsequently granted planning permission, with Condition 11 relating to archaeology. This required that all features identified during the 2017 testing programme be archaeologically excavated and that the topsoil stripping for the entire site be archaeologically monitored.

The monitoring for Phase 1 in 2019 uncovered a number of features that were subsequently excavated in 2019 and early 2020 (Giacometti et al. 2020). These included a prehistoric pit cluster, a fulacht fiadh and two kilns of probable medieval date amongst other pits and ditches. One of the kilns was associated with a post-built structure, possibly a raised granary, and both features were surrounded by an enclosure. A second subcircular enclosure was identified during the monitoring works associated with Phase 1. However, as it lay within the Phase 2 portion of the development it was not fully uncovered and was dealt with as part of the Phase 2 works.

A Request for Further Information dated 15/04/2020 relating to the current planning application (20/159) required that an Archaeological Impact Assessment be carried out (Condition 20), which was to comprise a geophysical survey and test-trenching. As noted above the testing was carried out in 2017 as part of the previous planning application. A geophysical survey was carried out in June 2020 by Joanna Leigh (20R0117; Leigh 2020). The Archaeological Impact Assessment was carried out by Steven McGlade in July 2020 (McGlade 2020).





Results of the geophysical survey for Phase 2, after Leigh 2021 ~~(top)~~

Summary of results of the 2017 testing, the 2019 excavation and the geophysical survey with areas of higher potential highlighted in red, areas of limited survey in orange and areas of moderate to low potential in yellow (bottom)

Section 2 Monitoring Programme

Trial holes

In March 2021 fourteen engineering trial holes were excavated and monitored across the site. The topsoil was generally 0.24-0.5m in depth, being deeper to the west.

The underlying subsoil varied from natural silty clay to stony gravels to hard yellow boulder clay. Features were identified in three trial holes.

An east-west orientated linear features was identified in Trial Hole 4. It was a minimum of 1.2m in width and 0.62m in depth. The southern side of the ditch was not identified in the trial hole. It was filled with mottled grey sandy clay and yellow redeposited boulder clay. No finds were noted. This appears to be a continuation of a linear encountered in Area 2 to the east during the subsequent excavation.

Linear identified in Trial Hole 4 cut into natural gravels, looking west (top left)

Depression in corner of Trial Hole 13, looking west (bottom left)

Ditch running along southern site boundary in Trial Hole 14, looking west (bottom)

A possible pit was identified in the northeast corner of Trial Hole 13. The feature measured a minimum of 0.56m east-west and 0.76m north-south. It was filled with orangey brown gravelly silty clay. No finds were noted. This trial hole lay to the west of Area 3. No features were noted here during the subsequent monitoring programme and the feature is likely to have been a natural depression.

A third feature was identified to the south in Trial Hole 14. It was an east-west orientated linear ditch measuring 1.25m in width and 0.3m in depth. It had a fill of dark brown silty clay with occasional stone, brick and charcoal inclusions. This ditch was encountered to the west in Area 6 and runs parallel to the current site boundary. It may be an earlier version of the boundary ditch. It was post-medieval in date.

Monitoring programme

Archaeological monitoring of the Phase 2 portion of the development took place sporadically from June until November 2021. Topsoil was stripped down to archaeological levels by a mechanical excavator and all potential archaeological features were assessed and, when necessary, excavated. Archaeological excavation ensued concurrently with the monitoring.

The first area monitored was where a green space is planned within the development. A large attenuation tank was excavated within this area after the archaeological features had been resolved. These features were agricultural in nature comprising field drains and a shallow pit.

The remainder of the Phase 2 lands were subsequently stripped and all archaeological features were investigated and excavated. The western and southern boundaries of the site were formed by overgrown hedgerows and as this was to be preserved stripping stopped a number of metres from each boundary.

Location of trial holes monitored across the site (top left)

Monitoring underway in the main part of the site, looking south (top right)

Monitoring underway in the main part of the site, looking north (bottom right)

Section 3 Excavation

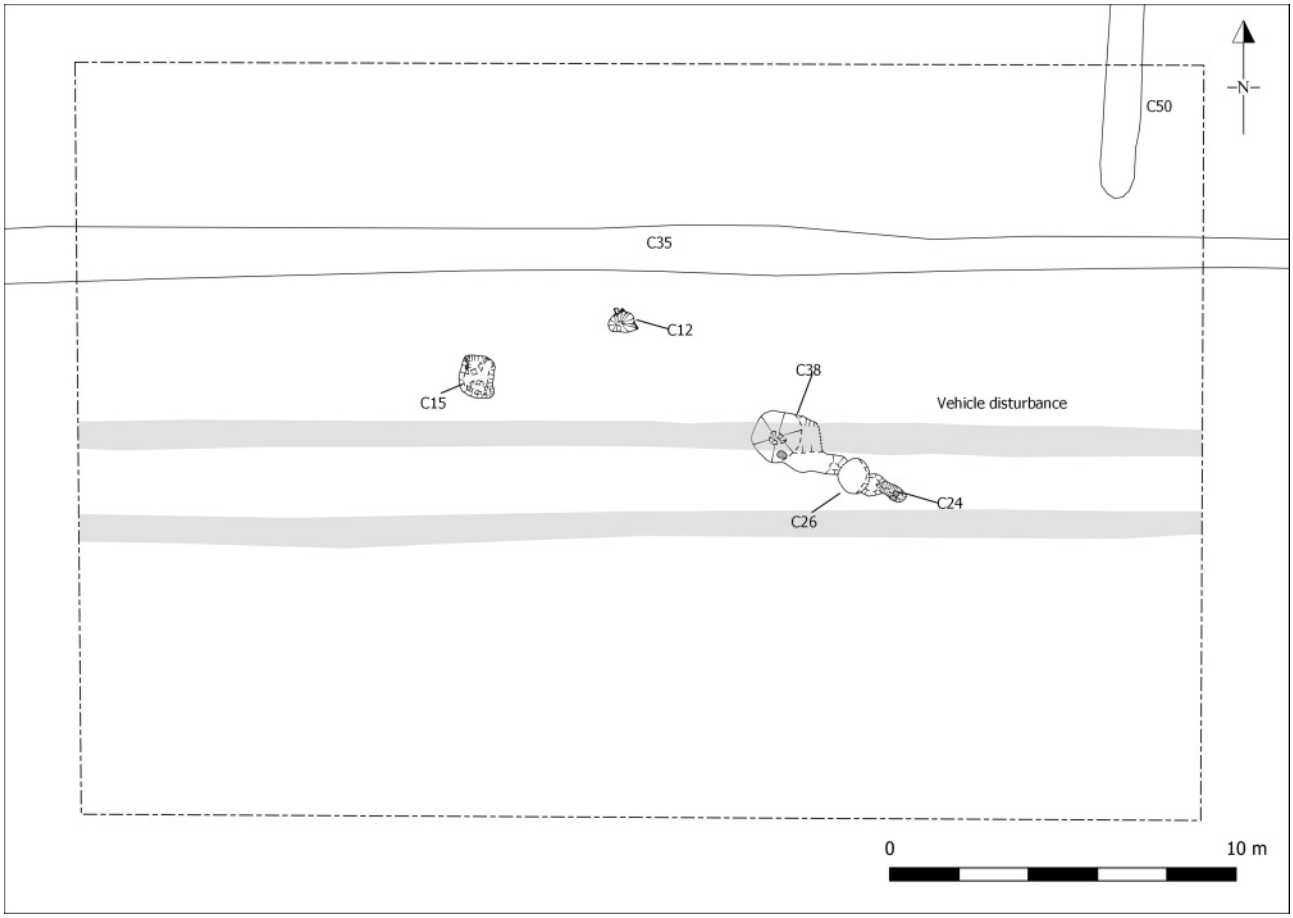
Six concentrations of archaeology were identified during the monitoring programme, which were numbered Areas 1-6. An archaeological area was created when three or more features were uncovered within a defined portion of the site. A number of the areas were quite sparce and the features within were not necessarily related to one another.

Area 1

Area 1 is located in Field 2, just south of the field boundary ditch (C35) and the hedgerow separating Fields 1 and 2. The features were heavily truncated and disturbed by modern machine traffic relating to the Phase 1 spoil management. One large and one small pit survived without too much disturbance but the smaller pit was root affected due to its proximity to the hedgerow. A kiln was almost entirely truncated.

Kiln C38

Sustained traffic of heavy machinery had severely truncated this kiln (Kiln 3), which had already been disturbed by root activity from the adjacent hedgerow. It was smaller than the kilns previously excavated further east on the site (Giacometti et al. 2020) and there was no evidence of any stone lining. It was formed by a sub-circular bowl with a shallow protrusion to the east. Fire-reddened clay along the sides and base of the bowl indicated that this was the firing chamber and the protrusion was probably



Post-ex view of Kiln 3, looking northeast (top)

Mid-ex view of pit C15, looking east (centre)

Post-ex view of Area 1, looking east (bottom)

the remains of the flue. The firing chamber was situated to the west and the upper fill (C39) was severely truncated by the machine tracks. The basal fill (C40) was predominantly charcoal. A granite quern or grinding stone was recovered from the southern edge of the kiln in the upper fill (C39).

Pit C26

This shallow pit (C26) truncated the east end of the flue of the kiln (C38) and the west edge of the scorched feature C24 thus destroying any relationship they might have had. The pit was circular in plan and bowl shaped in profile. It contained a single fill (C27) that contained occasional charcoal inclusions.

Shallow scorched cut C24

This area of burnt natural was located 0.6m east of the end of the flue of the kiln (C38). Both features were cut by a later pit (C26). The scorching was within a very shallow cut and is probably an extension of the flue of the kiln (C38). It was roughly keyhole shape in plan, orientated east - west and stepped in profile with the east side forming a shallow bowl. The feature contained a single fill charcoal rich fill (C25).

Pit C15

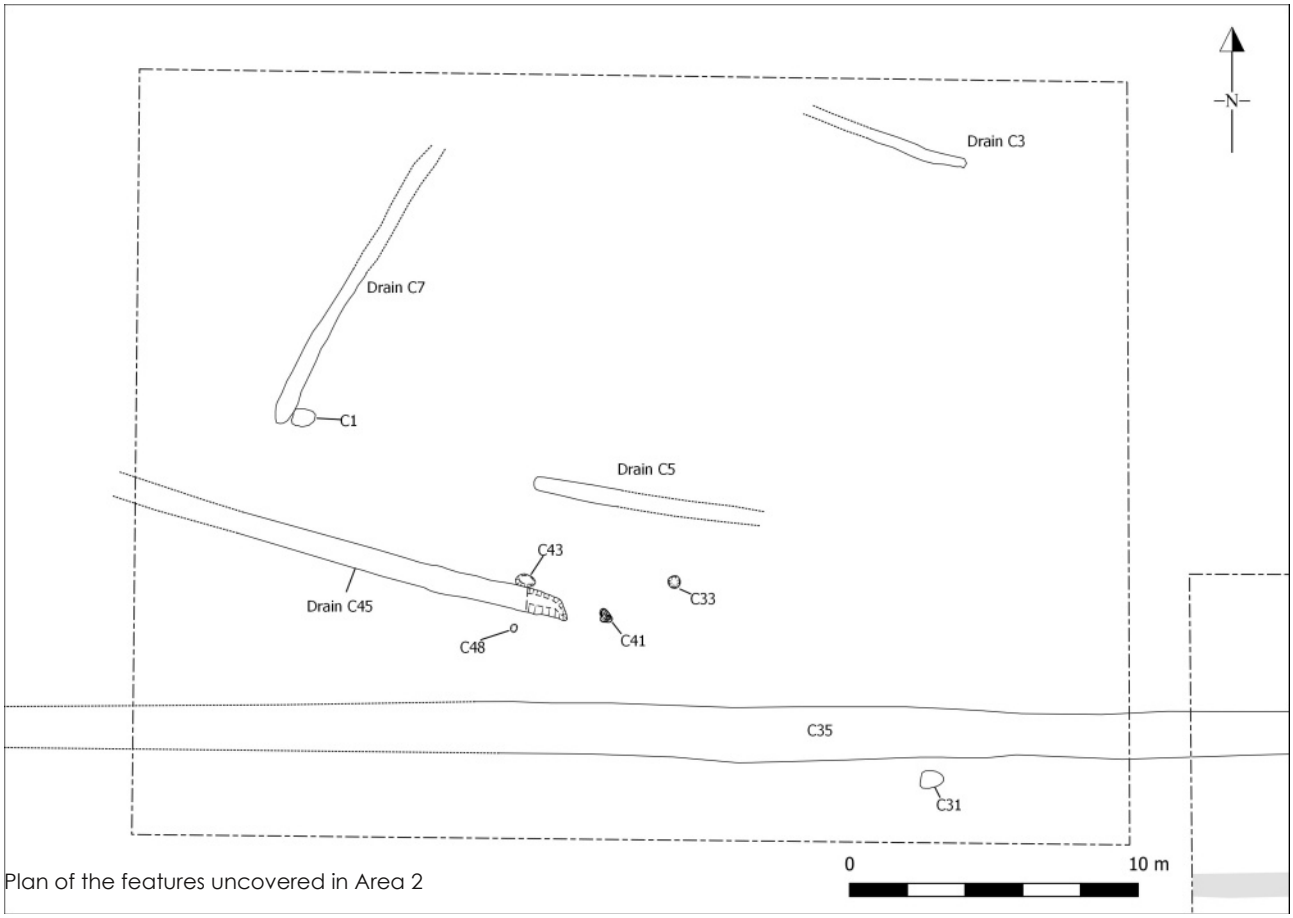
This pit was the larger of the two in this area. It was sub-rectangular in plan and orientated north-south. It contained a single fill C16.

Pit C12

This was a small shallow pit located c. 3m northeast of the larger pit (C15) and 5m northwest of the kiln (C38). It was sub-circular in plan and bowl shaped in profile. It contained two fills with charcoal inclusions throughout. Both the basal fill (C14) and the upper fill (C13) were disturbed by root activity.

Area 2

This area was located in Field 1 to the west of Area 1 and predominantly to the north of the field boundary ditch (C35). One feature in the area lay to the south of the ditch. There were a total of six pits and postholes and four linears within this area excluding the field boundary ditch C35. The linears were investigated with



Plan of the features uncovered in Area 2

sondages and in all four cases only one terminus was discernible.

Pit C31

This pit was located 0.4m south of the field boundary ditch C35. It was a shallow pit containing the articulated skeleton of a sheep. The skeleton had been truncated by the machine while stripping as the burial had been primarily within the topsoil layer. The cut (C31) was sub-oval in plan and while the sides had been truncated the base was bowl shape in profile. The fill (C32) around the skeleton was dark brown silty clay. Small fragments of coal within the fill indicate that this was post-medieval or modern in date.

Posthole C33

A posthole (C33) was located 4m north of the field boundary ditch (C35) and 3.33m northeast of Feature C41. The posthole was sub-circular in plan and bowl shaped in profile. The posthole contained a single fill (C34) and two relatively large angular packing stones. The fill (C34) contained moderate amounts of charcoal inclusions. Some minor root activity was noted.

Feature C41

A shallow and poorly defined feature (C41) was uncovered to the east of the terminus of Field drain C45. It may have been the base of a shallow pit or posthole or simply a result of agricultural or root activity. The cut was sub-oval in plan and a shallow bowl shape in profile. The single fill (C42) contained occasional charcoal and rare animal bone.

Pit/posthole C43

A pit or posthole (C43) was identified along the northern side of Field drain C45, which partially truncated it. The cut was sub-oval in plan and bowl shape in profile. The single fill (C44) contained frequent charcoal inclusions.

Posthole C48

A small posthole (C48) was located just under 1m south of the Field drain C45. It was sub-oval in plan and bowl shape in profile. The posthole contained a single fill (C49) that had occasional burnt bone and charcoal inclusions near the surface.

Mid-ex view of posthole C33, looking east (top)

Mid-ex view of field drain C45 and posthole C43, looking west (centre)

Post-ex view of Area 2, looking east (bottom)

Pit C1

A shallow pit (C1) was located close to the terminus and truncated the east side of Field drain C7. The pit was sub-ovoid in plan, bowl shape in profile and contained a single sterile fill (C2).

Field drain C45

A series of three linear field drains crossed the area running north-northwest to south-southeast. The southernmost field drain (C45) terminated to the south-southeast. The basal fill (C46) contained frequent charcoal inclusions while the upper fill (C47) contained occasional charcoal inclusions.

Field drain C5

A second linear drain (C5) was parallel to Field drain C45, 3.3m further to the north. There was a terminus at the western end and the cut was U-shape in profile. The drain contained a single fill (C6) that contained frequent charcoal and occasional animal bone fragment inclusions.

Field drain C3

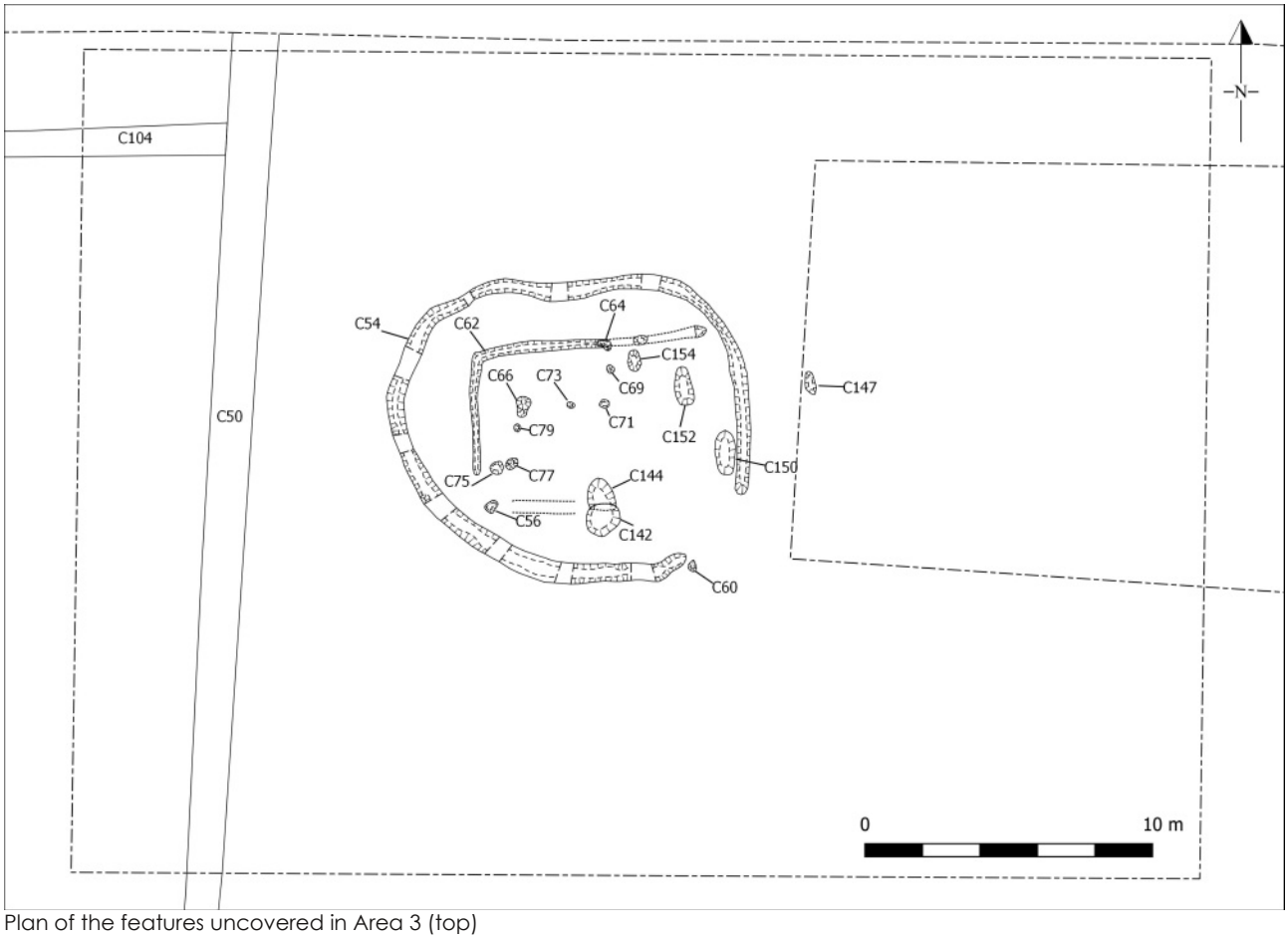
A third linear drain (C3) was parallel to the two further south (C3 and C45) and was located 14.6m northeast of C3. The drain terminated to the east and contained a single fill (C4) with frequent charcoal and occasional animal bone fragment inclusions.

Field drain C7

An additional field drain (C7) was also uncovered orientated north-northeast to south-southwest, almost perpendicular to the other three. The terminus was at the southern extent 3.24m from the north side of Field drain C45. The cut had an uneven profile and contained a single sterile fill (C8).

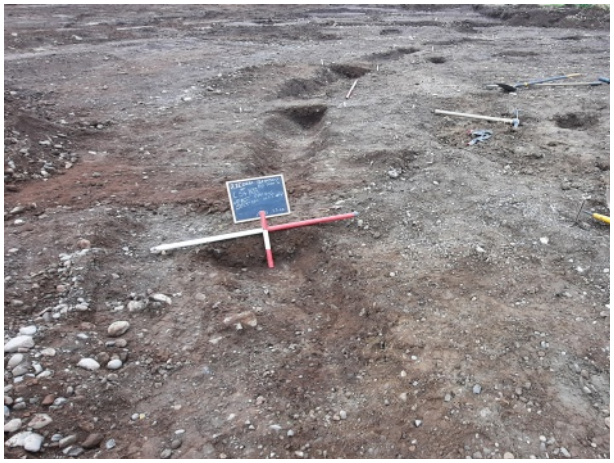
Area 3 - Penannular Enclosure

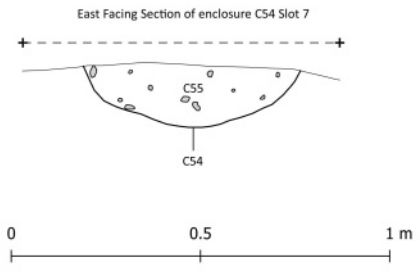
At the north-south running hedgerow across Field 1, close to the northern field boundary, a shallow curvilinear ditch was recorded running into the hedgerow during Phase 1(Giacometti et al. 2020, 43). A number of pits, within and outside the arc of the ditch, were excavated and recorded during Phase 1. Excavation in this area was then halted as this portion of the site fell



Plan of the features uncovered in Area 3 (top)

Post-ex view of enclosure and slot trench in Area 3, looking northeast (bottom)





Mid-ex view of enclosure ditch C54, looking west (top)

Mid-ex view of enclosure ditch C54 with slot trench C58 visible in centre along with other postholes and pits, looking northeast (upper centre)

Post-ex view of enclosure ditch C54 with slot trench C58 visible in centre along with other postholes and pits, looking east (lower centre)

East-facing section of enclosure ditch C54 (bottom)

into the Phase 2 lands. The area was covered with geotextile and cordoned off with the remainder of the archaeology here dealt with during the Phase 2 works.

During Phase 2 the hedgerows were removed and the entire area around the enclosure was stripped to the natural subsoil. This revealed a curvilinear ditch forming a penannular enclosure. The enclosure contained an L-shaped slot trench and several postholes forming the remains of a structure.

The hedgerow had impacted upon the curvilinear ditch with root activity and as the natural subsoil in this particular area was entirely gravel with shallow topsoil cover it can be surmised that the remaining archaeology had been impacted further by agricultural activity. In addition to this the east and southeast side of the enclosure, in particular, appeared to have been impacted upon by modern activity.

Enclosure ditch

A shallow curvilinear ditch (C54) was excavated centrally within Area 3, which enclosed an area of 11.35m north-south and 12.35m east-west. The ditch had a total length of 38.79m, an average width of 0.57m and an average depth of 0.16m. The entrance was situated to the southeast. The cut was roughly U-shaped in profile and contained a single fill (C55). A deposit of animal bone was identified in the northern terminus but bone was generally absent from the rest of the cut. A very small amount of burnt bone was encountered as well as one small piece of slag.

Slot Trench

A very shallow angular slot trench (C58) was located within the enclosure. It appeared initially to be a plough scar but upon investigation it formed a distinct L-shape. It ran from south to north for 4.25m (C58) then turned at a right angle to run 8.1m to the east (C62). It measured a maximum of 0.58m in width and 0.11m in depth. The eastern extent of the slot trench ran up to the interior of the enclosure gully C54. The slot was generally V- or U-shaped in profile that contained a single sterile fill (C59/C63).

Posthole no.	Location	Length	Width	Depth
C69	Within structure	0.28m	0.28m	0.11m
C71	Within structure	0.34m	0.30m	0.11m
C73	Within structure	0.26m	0.25m	0.12m
C79	Within structure	0.48m	0.28m	0.19m
C77	Within structure	0.55m	0.35m	0.20m
C75	Within structure	0.47m	0.44m	0.16m
C64	Within slot trench	0.50m	0.35m	0.12m
C56	Interior of enclosure, outside structure?	0.43m	0.30m	0.13m
C60	Southern terminus of enclosure gully	0.42m	0.40m	0.17m

Table of postholes within the enclosure

Postholes

There were nine postholes within the penannular enclosure (C54) and all were located to the south and east of the slot trench (C58/C62). They did not form an obvious shape in plan, however, as discussed, the area had been impacted upon by agricultural activity and this may explain an absence of some shallower features.

Posthole C64

A posthole (C64) was located within the slot trench C62 but the fill (C65) was distinctly different to the fill of the slot trench (C63). This may represent a later cut or simply that the post was removed or decayed in situ forming a distinctly different fill. The cut was sub-oval shaped in plan and U-shaped in profile. The depth was the same as the slot trench at 0.11m.

Posthole C69

This posthole was located 0.6m south of Posthole C64. It was sub-circular in plan and bowl-shaped in profile and contained a single fill (C70).

Posthole C71

This posthole was located 0.9m south of Posthole C69. It was sub-circular in plan and was an irregular U-shape in profile. It contained a single fill (C72).

Mid-ex view of posthole C64 cutting slot trench C58/C62, looking west (top)

Mid-ex view of posthole C71, looking west (centre)

Post-ex view of postholes C66, looking east (bottom)

Posthole C73
This posthole was located 0.85m west of Posthole C71. It was sub-circular in plan and V-shape in profile and contained a single fill (C74).

Posthole C66
The deepest posthole within the enclosure (C66) was located 1.25m west of Posthole C73. It was sub-oval in plan and funnel-shaped in profile. It contained two fills. The basal fill (C68) was loosely compacted, while the upper fill (C67) was moderately compacted.

Posthole C79
A small posthole (C79) was located 0.5m south of the Posthole C66. It was sub-circular shape in plan and U-shaped in profile with a single fill (C80).

Posthole C77
This is potentially a double posthole with one of the cuts shallower than the other. It was located 0.9m south of Posthole C79. The shallower part may, alternatively, have been a stone socket for a supporting or packing stone for the post. The feature was sub-oval in plan and irregular in profile. The deeper bowl shaped part of the feature, interpreted as a posthole, was at the southwest with the shallower depression to the northeast. Both sides contained the same fill (C78).

Posthole C75
Another posthole (C75) was adjacent to and west of Posthole C77. It was subcircular in plan and bowl-shaped in profile and contained a single fill (C76).

Pit/posthole C56
Another possible posthole or pit (C56) was located 0.9m south of Posthole C76 and 1.1m south of the southern terminus of the slot trench (C58). It was oval in plan and U-shaped in profile and contained a single fill (C57) that was heavily root affected.

Mid-ex view of double posthole C77, looking northwest

Posthole C60
A posthole was located at the southern terminus of the enclosure ditch. Due to the disturbance in this area it was difficult to discern the relationship but it appeared that the posthole cut the ditch. It was sub-circular in plan and bowl-shaped in profile. The single fill (C61) was sterile.

Pits
Three pits, two within (C142, C144) and one to the east (C147) of the enclosure were resolved during Phase 1 (Giacometti et al. 2020, 32). These are briefly outlined in the panel below. Three additional pits were also excavated within the enclosure.

Pit C150
A sub-oval pit (C150) was uncovered adjacent to the inner side of the enclosure ditch to the east. It contained a single fill (C151) that was sterile.

Pit C152
An elongated oval-shaped pit (C152) was uncovered to the east, which was perpendicular to the slot trench C58. It is possibly an extension of the slot trench however it was

Phase 2 Ref. No.	Phase 1 Cxt. No.	Length	Width	Depth	Inclusions
C142	C139	0.59m	0.57m	0.13m	Animal bone
C144	C141	0.70m	0.61m	0.16m	Animal bone, burnt bone, charcoal
C147	C151	1.06m	0.80m	0.25m	Burnt bone, charcoal

Pits excavated during Phase 1 of the development under Licence No. 17E0125

separated from it. It contained a single fill (C153) that was sterile.

Pit C154

A shallow sub-oval pit (C154) was located within the area of the slot trench (C58) and to the east of Posthole C69.

Area 4

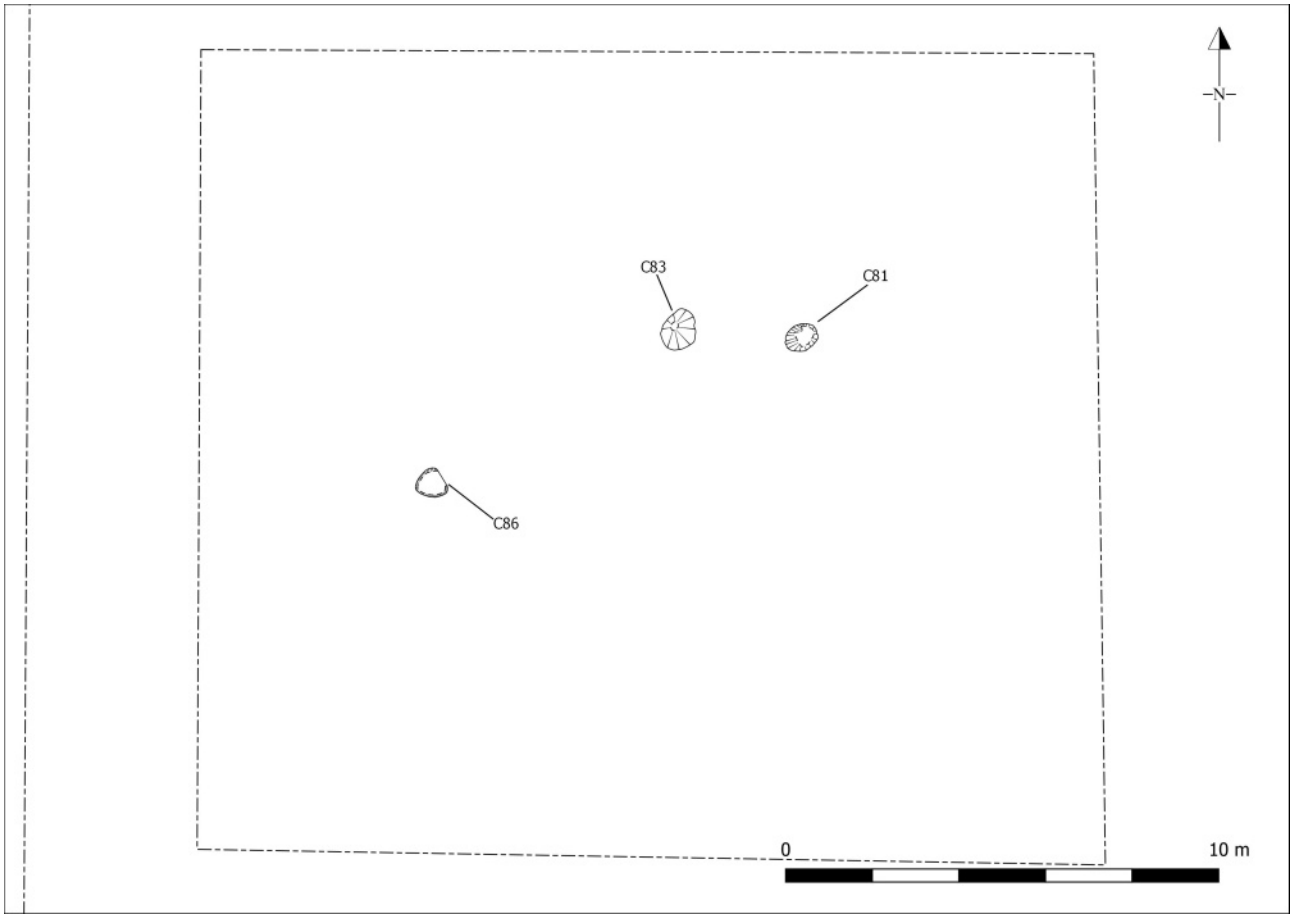
Area 4 was located to the west of Area 3 and east of Area 5 on the north side of Field 1. There were just three pits in this area.

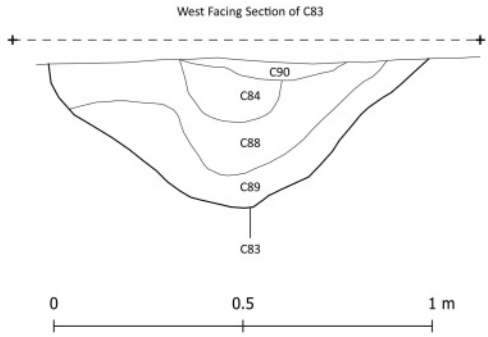
Fire Pit C83

A fire-pit (C83) was located centrally within the area. It was sub-circular in plan and bowl-shaped in profile. The pit contained four fills. The basal fill (C89) was predominantly charcoal. This was overlain by a secondary fill (C88) which had charcoal inclusions. To the north side of the pit this layer was heat scorched to a red colour and this burning event was given a

Mid-ex view of fire-pit C83, looking east (top)

Plan of features in Area 3 (bottom)





Mid-ex view of Pit C81, looking east (top)

West-facing section of Pit C83 (centre)

separate number (C91). The next fill was another charcoal layer (C84). This deposit is presumably the result of the burning event that scorched the underlying layer C88. The uppermost fill (C90) contained occasional charcoal inclusions. This layer represents the final silting up of the feature after disuse.

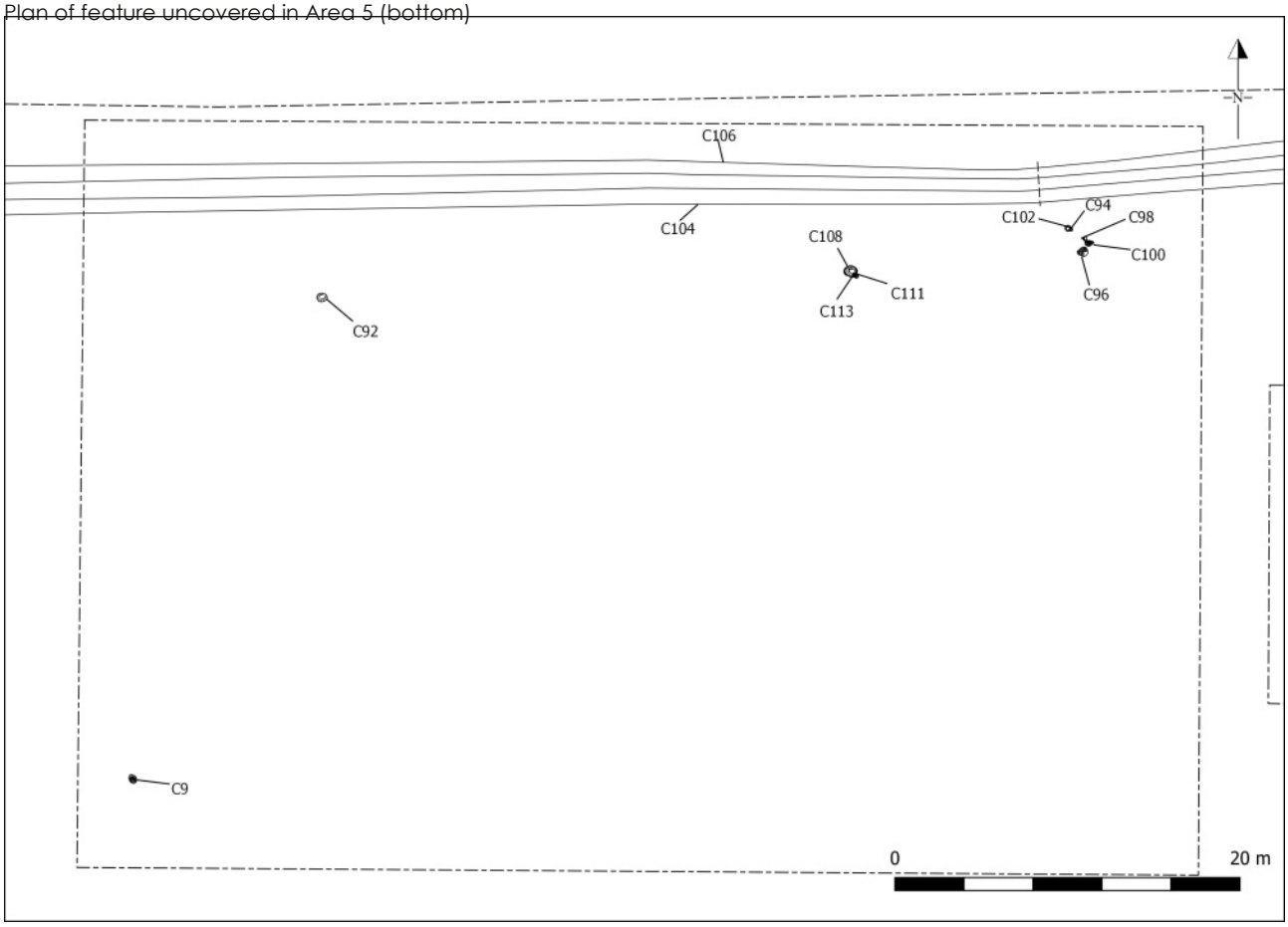
Pit C81

This pit was located 2.1m east of Pit C83. It was sub-oval in plan and bowl-shaped in profile. The pit contained two charcoal-rich deposits but there was no evidence of in-situ burning within the cut. The basal fill (C85) was a charcoal layer while the upper fill (C82) contained occasional charcoal inclusions.

Pit C86

This pit was located 5.85m southwest of Pit C83. It was sub-circular in plan but the northeast side had been truncated by an animal burrow that ran northwest -southeast. It was basin-shaped in profile with a flat base. The pit contained a single fill (C87) with occasional charcoal fleck inclusions.

Plan of feature uncovered in Area 5 (bottom)



Area 5

Area 5 was located to the northside of Field 1 and all but one of the features were situated in the north of the area.

Furnace C9

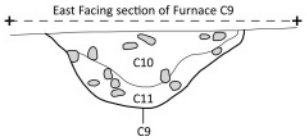
This furnace was located to the southwest in Area 5 and was entirely isolated. It was a small bowl shaped furnace that was subcircular in plan and dug into loose natural gravel. There was scorching along the sides particularly towards the surface. It contained two fills, both of which contained lumps of slag. The basal fill (C11) was charcoal rich and had moderate amounts of slag and burnt clay fragment inclusions. The upper fill (C10) was a mixed deposit of burnt clay fragments and charcoal in silt. The fill was moderately compacted with frequent slag inclusions. The burnt clay fragments are probably the remains of the superstructure and lining of the furnace.

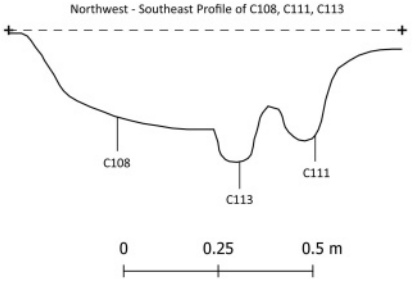
Pit C92

This was another isolated feature located 29m north-northeast of the furnace (C9). It was a small shallow pit, sub-oval in plan and basin-shaped in profile. The pit was dug into loose natural gravel. It had a single fill (C93) with occasional burnt bone and charcoal inclusions. Both the charcoal and burnt bone were within the upper 0.05m (third) of the fill.

Pit C108 and postholes C111 and C113

A pit (C108) associated with two postholes (C111 and C113) was uncovered towards the northern end of the area. It was sub-circular in plan and basin-shaped in profile. Two small postholes were associated with the pit, one





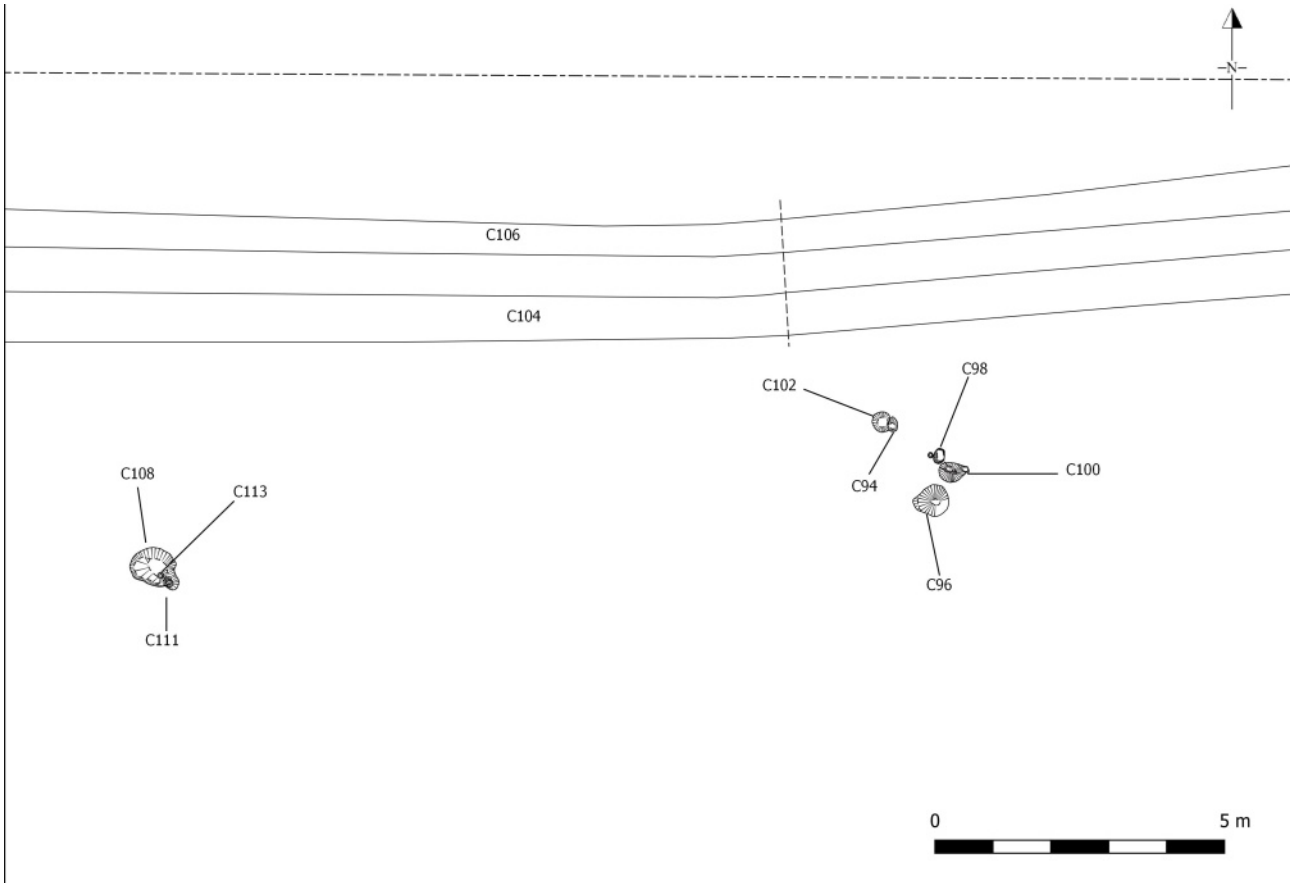
Mid-ex view of furnace C9, looking west (top)

East-facing section of furnace C9 (upper centre)

Mid-ex view of pit C108, looking northeast (centre)

Post-ex view of Pit C108 with postholes C111 and C113, looking northeast (lower centre)

Profile of Pit C108 with postholes C111 and C113 (bottom)



(C111) on the eastern edge of the pit and the second (C113) adjacent to this in the east side of the base. There were two fills in the pit. The basal fill (C109) was black silty charcoal with occasional burnt bone inclusions. The upper fill (C110) had frequent charcoal and occasional burnt bone inclusions. This layer was deepest over the area of the posthole (C113) and probably represents slumping from when the post was removed or decayed in situ.

The posthole (C111) on the eastern edge of the pit was sub-oval in plan and U-shaped in profile. The main fill (C112) was sterile. A secondary fill (C115) surrounded the upper part of the posthole and this slender deposit contained occasional charcoal flecking but is probably the result of bioturbation or other natural occurrence rather than a packing material.

The posthole (C113) in the base of the pit was circular in plan and U-shape in profile. It had a single fill (C114) that contained occasional charcoal inclusions.

Neither posthole was evident during the initial half-sectioning of the pit indicating that they are either earlier than, or contemporary with, that feature.

Close-up plan of feature along the northern end of Area 5 (top)

Post-ex view of postholes C98, C100 and C102, with stake-hole C94, looking west (bottom)

Pit C96

A cluster of features was uncovered to the east of Pit C108. The southernmost of these was a pit (C96) which was circular in plan and almost V-shaped in profile. The pit contained a single fill (C97) with rare charcoal fleck inclusions.

Postholes C98, C100 and C102 and stake-hole C94

A cluster of four postholes was located to the north of Pit C96. The closest posthole (C100) was 0.11m to the north. It was circular in plan and funnel-shaped in profile. A small, shallow, subcircular pocket protruded from the eastern edge and may have held a packing stone or some other support. There was a single fill (C101) with moderate charcoal inclusions.

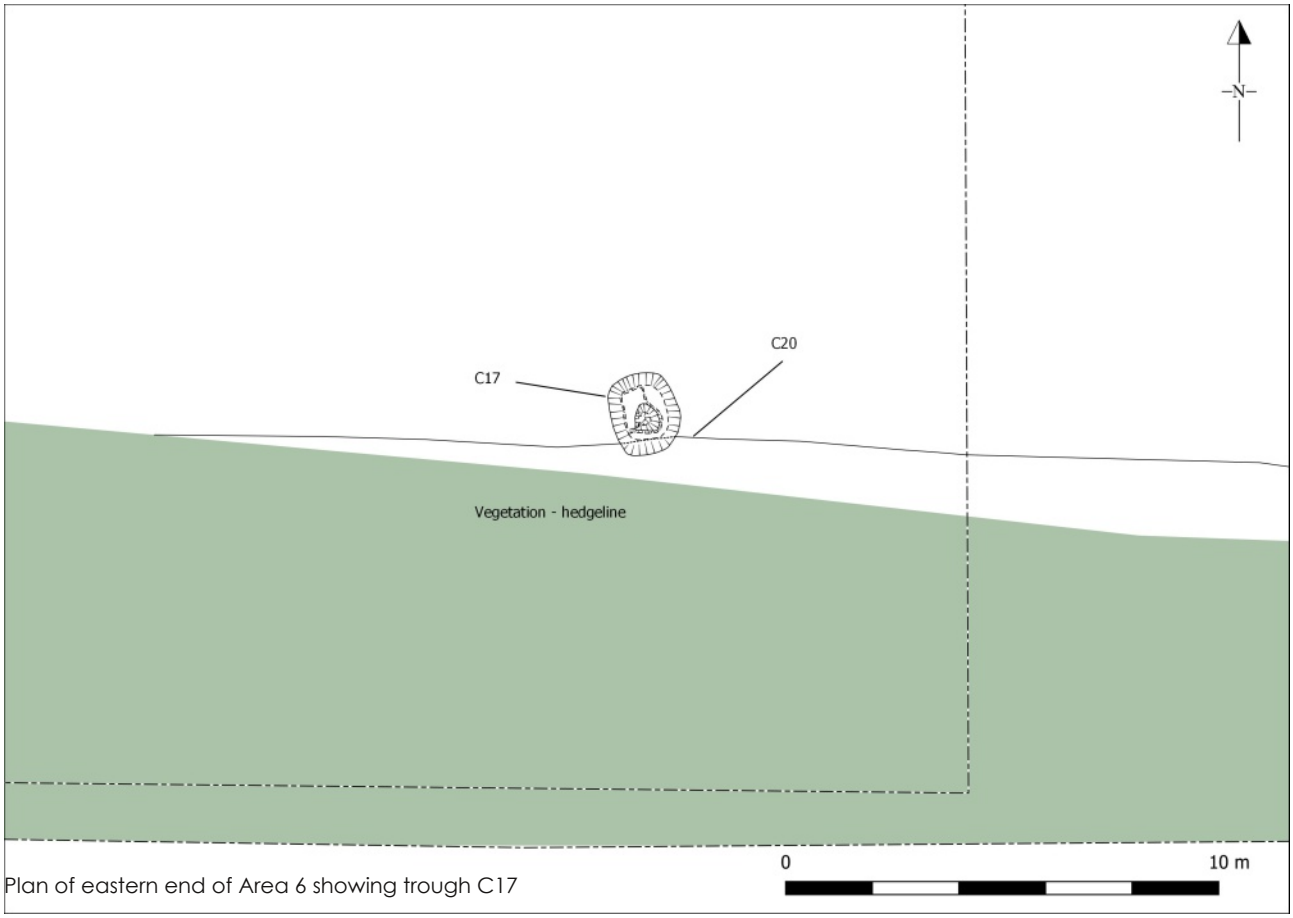
Another posthole (C98) was uncovered directly to the northwest. It was oval in plan. There was a small shallow circular pocket on the west side of the posthole that may have held a packing stone or other type of support. The single fill (C99) contained frequent charcoal inclusions particularly towards the upper west side and within the small circular pocket.

A stake-hole (C94) was located 0.75m to the northwest. It was sub-circular in plan and tapered in profile. The stake-hole was filled with black silty and gravelly charcoal (C95). Although the stake-hole was full of charcoal there was no scorching of the natural along the sides and edges.

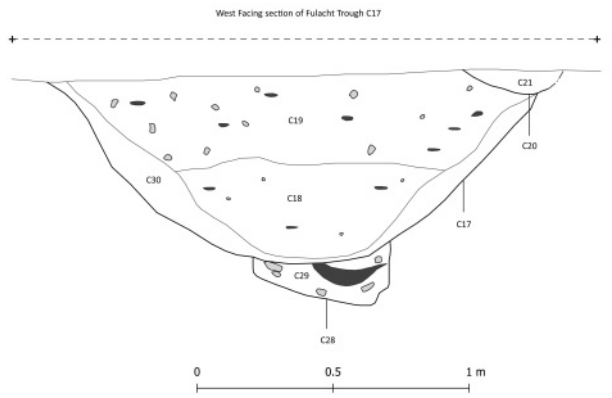
The final posthole (C102) in the cluster was immediately west of, and cut by, the stake-hole (C94). It was circular in plan and U-shaped in profile. It had a single fill (C103) that contained moderate amounts of charcoal inclusions.

Area 6

Area 6 was located along the southern boundary of the site in Field 2. The archaeology consisted of a number of features clustered together towards the western extent of the site and an isolated trough filled with burnt mound material that was located approximately 44m to the east.



Plan of eastern end of Area 6 showing trough C17



Mid-ex view of trough C17, looking east (top)

Mid-ex working shot of trough C17 showing clay lining C30, looking east (centre)

West-facing section of trough C17 (bottom)

Trough C17

This feature lay along the southern boundary of the site against the hedgerow. It was truncated on the south side by a field boundary ditch (C20). The trough (C17) was sub-oval in plan with the long axis north to south. A further cut (C28) was identified in the base of the feature which may have been an earlier cut. The sides and base of the trough had been lined with clay (C30). No lining was identified relating to the cut in the base (C28). The cut in the base was sub-oval in plan and had the same orientation as the larger pit.

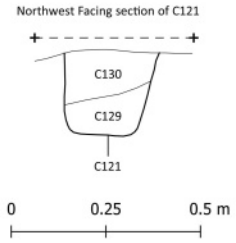
The lining (C30) was well compacted with occasional stone and charcoal inclusions and affected by some root activity. Two fills were identified within the trough/well. The basal deposit (C18) contained frequent heat-shattered stones and charcoal. The upper fill (C19) was more compacted. It also contained frequent heat-shattered stones and charcoal but was more affected by root activity from the hedgerow. The earlier cut (C28) in the base had a single fill (C29) which did not contain any heat shattered stone or charcoal.

Pit/posthole C121

The remaining features in the area were clustered to the west. The most westerly pit (C121) was oval in plan and U-shape in profile. Two fills were identified in the pit. The basal fill (C129) contained a prehistoric pottery fragment and a worked flint object, possibly a scraper. Several heat-affected stones and an unusual stone with natural erosion markings were also retrieved from the fill. The upper fill (C130) contained frequent charcoal inclusions.

Pit C116

Another pit (C116) was located 1.6m south. It was very irregular in plan due to root disturbance but was probably originally oval in plan. The single fill (C117) contained a small convex, or thumbnail, scraper and occasional charcoal chunks and burnt bone inclusions. It also contained small to medium sized stones some of which had been heat affected. There was no evidence of in situ burning and the material seems to have been dumped into the pit.



Mid-ex view of pit C121, looking southeast (top)

Northwest-facing section of pit C121 (centre)

Plan of feature in the western end of Area 6 (bottom)

Curvilinear C120

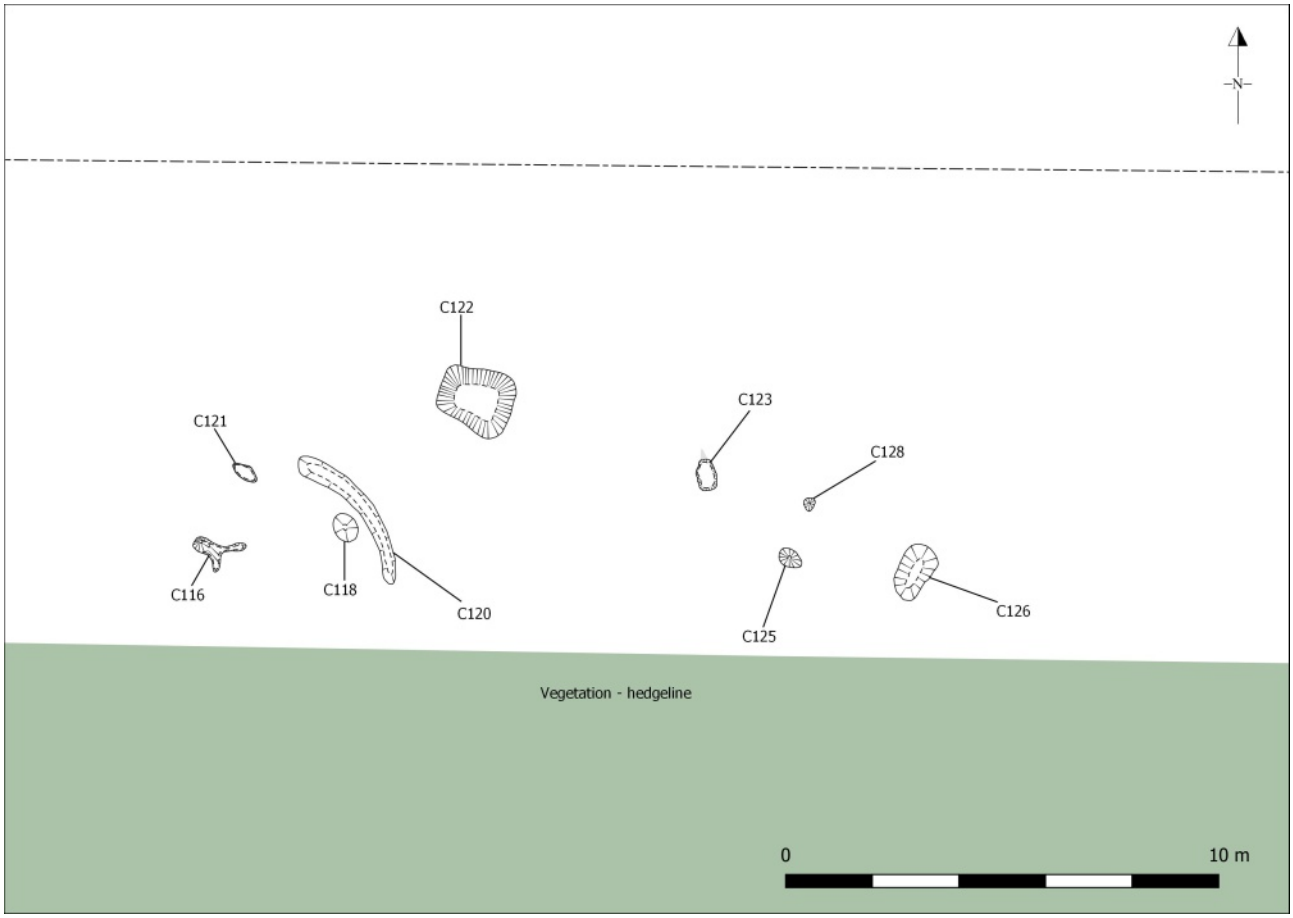
A shallow curvilinear was uncovered to the east of the pits. It ran in an arc for 3.45m from the south to the west. The pit C118 was situated midway within that arc. The single fill (C141) contained charcoal inclusions and fragments of an iron nail.

Pit C118

A pit (C118) was uncovered 0.18m to the southwest midway along the arc of the feature. The pit was subcircular in plan and was a shallow bowl shape in profile. It contained a single fill (C119) that was significantly affected by root activity. It contained partially articulated animal bones that suggest that it was the shallow burial of a farm animal similar to the sheep burial (C31) in Area 2.

Pit C122

A large deep pit (C122) was located 4.5m northeast of Pit C121. It was sub-rectangular in plan with rounded corners and square in profile. It contained three fills. The basal fill (C135) contained occasional small stones and sand inclusions and may be a result of sedimentation

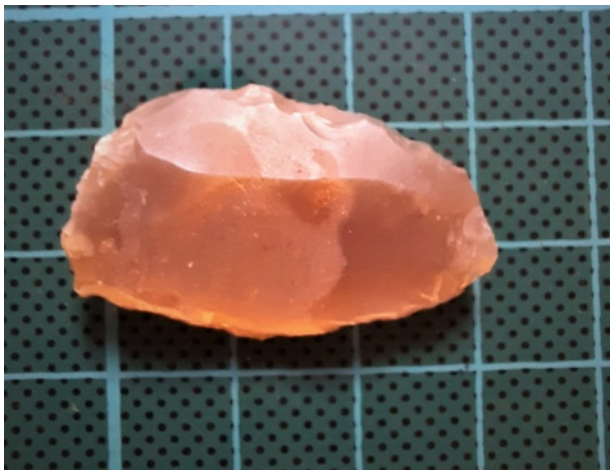


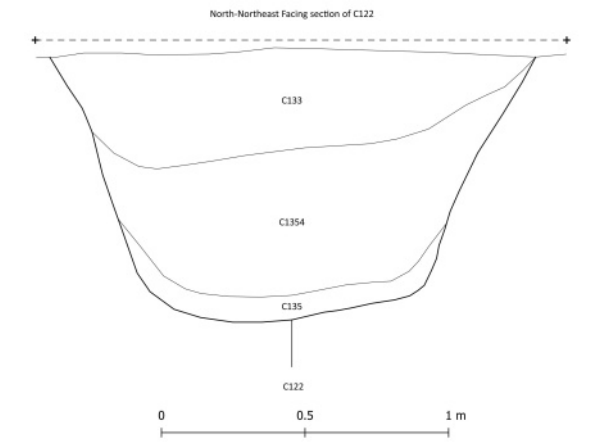
Sherd of Late Bronze Age pottery retrieved from pit C121 (top)

Worked flint artefact retrieved from pit C121 (upper centre)

Post-ex view of pit C122, looking south (lower centre)

North-northeast-facing section of pit C122 (bottom)





that occurred while the pit was open. The secondary fill (C134) contained occasional charcoal and animal bone fragment inclusions and was used to backfill the pit. The upper fill (C133) contained occasional charcoal and animal bone fragment inclusions. This deposit was also used as backfill material.

Pit C123

Further to the east a shallow pit (C123) was uncovered. The feature was oval in plan, orientated north to south, and bowl-shaped in profile but heavily impacted by root activity. The single fill (C136) contained frequent charcoal.

Pit/posthole C128

A small pit or posthole (C128) lay to the east of this. It was oval in plan and bowl-shaped in profile. It contained a single fill (C137) which contained frequent charcoal stone inclusions.

Pit C125

A small pit (C125) was uncovered to the south of this. It was oval in plan and bowl-shaped in profile. The pit contained two fills. The basal fill (C131) was silt and charcoal while the upper fill (C132) contained occasional charcoal inclusions.

Pit C126

The easternmost feature of the cluster was a small shallow pit (C126). It was oval in plan and bowl-shaped in profile. It contained a single fill (C140) with occasional charcoal inclusions.

Context	Length	Width	Depth	Finds/Ecofacts
C121 Pit	0.58m	0.30m	0.23m	Prehistoric ceramic, struck flint
C116 Pit	1.25m	0.80m	0.28m	Thumbnail scarper, burnt bone, burnt stone, charcoal
C120 Curvilinear	3.45m	0.43m	0.06m	Fe nail fragments
C118 Pit	0.64m	0.50m	0.08m	Articulated animal bone
C122 Pit/Well	1.84m	1.54m	1.15m	Animal bone, charcoal
C123 Pit	0.77m	0.50m	0.10m	Charcoal
C128 Pit	0.32m	0.27m	0.15m	Charcoal
C125 Pit	0.58m	0.41m	0.15m	Charcoal
C126 Pit	1.35m	0.70m	0.21m	Charcoal

Summary of findings from pits in Area 6

Field boundary ditches

During Phase 2 five field boundary ditches were recorded on the site.

Field boundary ditch C35

A ditch (C35) was recorded running east-west across the site and had in the past separated Field 1 in the north from Field 2 in the south. The ditch was U-shaped in profile. The sides had been affected by root activity from the hedgerow that ran alongside. The ditch contained two fills and there was no evidence of any recuts. The basal fill (C36) contained occasional charcoal inclusions and a red brick fragment was recovered. The upper fill (C37) contained occasional snail shell fragments. Both deposits were heavily root affected.

Field boundary ditch C50

A ditch (C50) ran north - south across the Field 1 and terminated 1m from Ditch C35. The linear had a wide U-shape in profile. It contained a single fill (C51) that was cut by a smaller recut of the ditch (C52). The recut was situated over the eastern side of the ditch. It was shallower than the initial ditch cut (C50) and was U-shaped in profile. The single fill (C53) contained modern and post-medieval pottery sherds near the surface.

Field boundary ditch C104

Two parallel linears were uncovered along the northern side of Field 1, orientated east - west, approximately parallel to the present field boundary. The southern linear (C104) was shallow with a U-shaped profile. It had a single fill (C105) which contained occasional charcoal inclusions.

Field boundary ditch C106

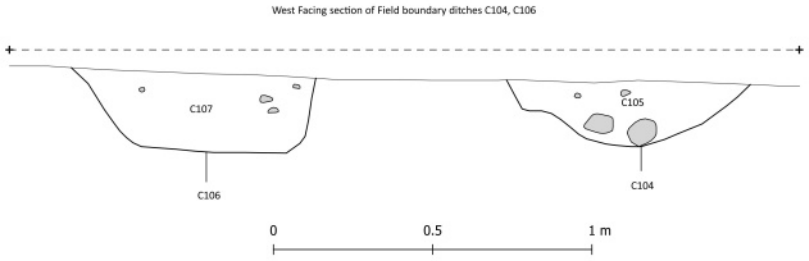
The second shallow linear (C106) lay to the north. It ran from the western boundary alongside the ditch C104 before running into and under the northern boundary. This ditch was also U-shaped in profile. The single fill (C107) contained sherds of post-medieval pottery and frequent charcoal inclusions.

Mid-ex view of slot through field boundary ditch C35, looking west (top)

Mid-ex view of slot throuygh field boundary ditch C50, looking north (bottom)

Field boundary ditch C20

This linear ran along the southern boundary of the site beneath the hedgerow and was only encountered when the trough/well full of burnt mound material (C17) was excavated. This was only partially excavated where it truncated the trough as the hedgerow restricted any further investigation elsewhere. The north side of the linear was gently sloping and the base was not encountered. No inclusions were noted in the fill (C21).



West-facing section of ditches C104 and C106 (top)

Mid-ex view of field boundary ditches C104 and C106, looking east (bottom)

Section 4 Discussion

The archaeology excavated during Phase 2 of this development broadly mirrors that encountered in Phase 1. The agricultural nature of the site is represented in both phases by kilns, field boundary ditches and field drains. A probable Bronze Age trough was encountered in both phases although the usually accompanying burnt mound did not survive to any great extent in either case, probably due to later agricultural activity. The prehistoric activity in the form of a pit cluster in Phase 1 may be represented in Phase 2 by at least two pits containing lithics and a sherd of prehistoric pottery. The penannular enclosure is probably related to agricultural practices rather than a Bronze Age burial monument associated with the Curragh complex. The small smelting furnace is potentially Iron Age in date and did not have a parallel in Phase 1.

Penannular Enclosure, Area 3

The enclosure was located close to the northern boundary of the site on a very slightly elevated area of loose natural gravel. The topsoil cover at this location was quite shallow (approx. 0.2m deep) compared with the rest of the site. A mature hedgerow ran north to south across the western side of the enclosure. The entire area of the enclosure appeared to have been affected by agricultural activity over time.

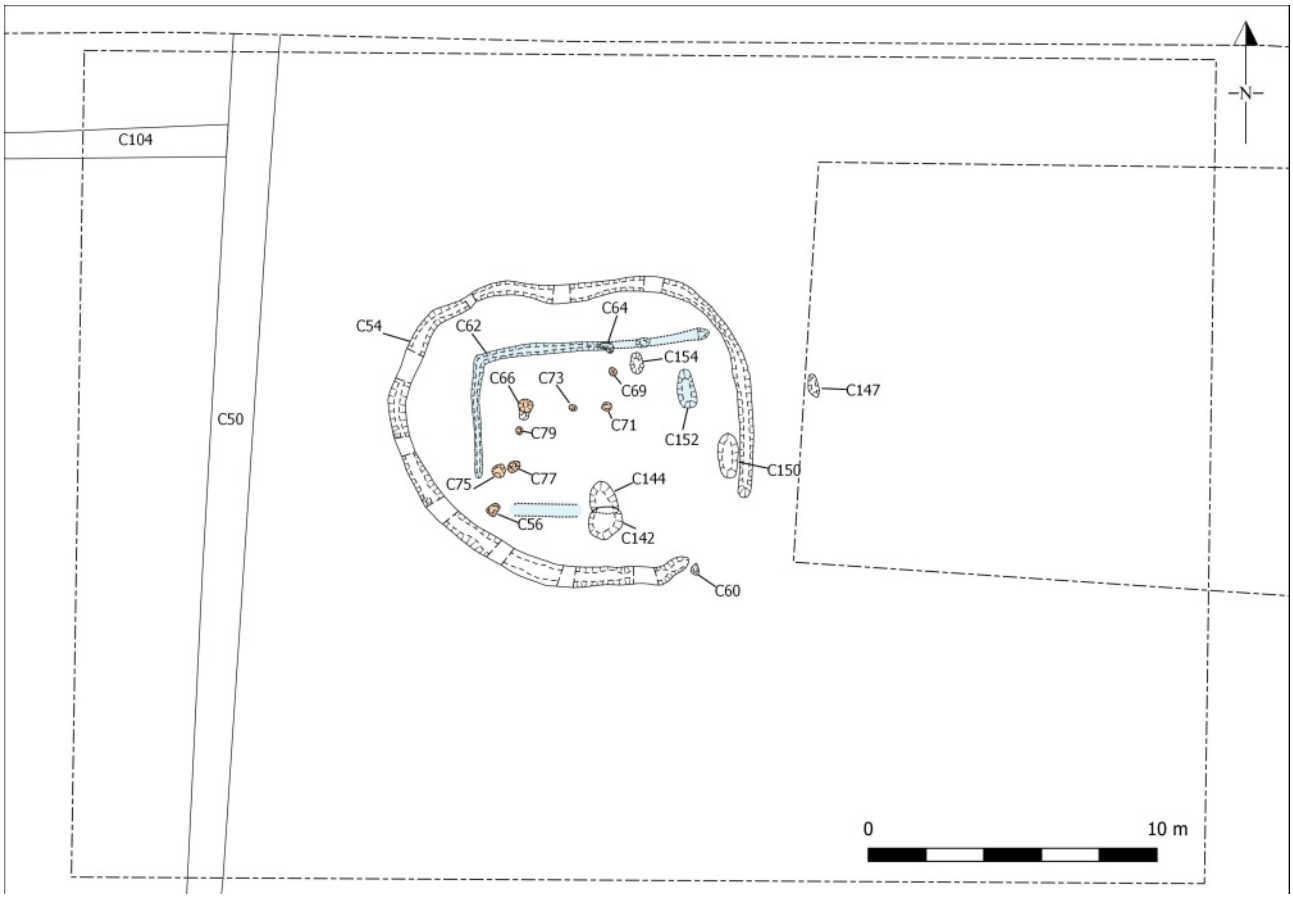
The enclosure measured 12.35m east to west and 11.35m north to south forming a roughly circular area of c. 110m². The gully (C54) that formed the enclosure was quite shallow and had been significantly affected by root activity, particularly to the north and west, where former hedgerows impacted the enclosure. The entrance was situated at the southeast and measured just over 3m in width. A posthole (C60) at the southern terminus of the curvilinear is potentially the remains of a gatepost. A similar penannular enclosure,

Oblique aerial view of the enclosure and features within, looking northeast

surrounding a dumbbell-shaped kiln and probable granary, was excavated during Phase 1 of the development (Giacometti et al. 2020, 6). The Phase 1 enclosure measured 14m by 12.75m and had an entrance measuring 3.4m to the west. The enclosing gully was deeper and more defined than that of the Phase 2 enclosure though this may be due to a variation of the underlying natural combined with the levelling effect of agricultural activities. The shallowness of the Phase 2 enclosure suggests that it has been more impacted and reduced by this activity, perhaps indicating it was originally on a slight rise in the field that has since been levelled out through ploughing. There was no evidence for any cereal kilns or similar features associated with the Phase 2 enclosure.

View of the enclosure excavated in 2019 surrounding Kiln 1 and a probable raised granary structure, looking east (top)

Within the enclosure an L-shaped slot trench (C58) was uncovered, which was orientated east-west measuring c. 8m by 4.25m. To the south and west of the structure the area was particularly disturbed but a short linear feature (C152) running north to south may be the remains of a corresponding slot trench on the east side. The south side of the structure was represented by a single posthole (C56) but slight



Plan of the enclosure uncovered in Area 3 with possible elements of the rectangular structure highlighted in blue and additional postholes highlighted in orange (bottom)

Features uncovered during both phases of excavation at Rathbride Road hinting at an investment in agriculture and efforts at improving output. These features (kilns, a granary and a barn-type structure) may be contemporary and suggest a concerted effort in agricultural improvement, or they may indicate continuous efforts and investments in agriculture were being made over a sustained period

depression extending west from the posthole may have been the remains of another slot trench. These features indicate a rectangular structure measuring 7m by 5.3m internally. The fill of the slot trench C59 was sterile and no artefacts or ecofacts were retrieved during excavation. One posthole (C64) was located within the slot trench to the north. It is possible that the posthole and slot trench are contemporary rather than sequential.

There are seven further postholes within the rectangular area formed by the slot trench. These are presumably the base of the deeper features within the enclosure as it is clear the archaeology in the area has been truncated. As such, it can be assumed that we do not a complete record of the archaeological remains of the structure.

Rectangular structures first appear in Ireland during the Neolithic period. They are often represented by a slot trench and postholes and vary in dimensions but are generally between six and eight metres long and four and seven metres wide although larger examples do exist (Smyth 2014, 27). Circular structures dominate the archaeological record in Ireland from the Bronze Age and it is generally thought that a change in the use of roundhouses to rectangular houses occurred in Ireland after about AD 800 (Kerr et al. 2010, 21). Rectangular buildings in early medieval Ireland were generally approximately the same size as roundhouses at 6-7m in length (Lynn 1994, 92). The average lengths of the Type 1 houses from Viking Dublin was 7.52m, with an average floor area of 39.77m², though the three largest had floor areas between 67m² and 69m² (Wallace 1992a, 10). The slot trench at Rathbride Road suggests a structure with a floor area of c. 37m², comparable to other rectangular buildings dating to the latter part of the early medieval period.

Based on the archaeological evidence retrieved during the excavation it is more likely that the structure uncovered in Area 3 had a non-domestic function. There was a lack of habitation debris within the slot trench or the features in the immediate vicinity to suggest

that this was a dwelling. It is more likely to have been a small barn or an animal pen. The enclosing gully did not have any postholes within it and so probably held a lightweight fence designed to keep animals in or out. This would conform with the archaeology to the east and suggest an investment in the agricultural output of the area, presumably associated with Kildare to the south, with structures including well-built kilns, granaries and barns dotting the landscape.

Environmental analysis on samples from the enclosure will be carried out to see if any additional information can be gleaned from them. A radiocarbon date will be sought to ascertain whether this enclosure was a contemporary of the kiln enclosure uncovered in Phase 1.

Mid-ex view of the furnace C9 excavated in Area 5, looking west

Smelting Furnace, Area 5

A small smelting furnace (C9) was located towards the northwest of the site and appeared to be a simple circular slag-pit shaft furnace (Rondalez 2017, 112). The earliest evidence for iron-working in Ireland has been dated from around 800-400 B.C. from two sites excavated on the Kinnegad-Enfield-Kilcock phase of the M4 motorway scheme (Wallace and Anguilano 2010). Early furnaces were cylindrical shafts of clay over a small pit in the ground. The ores were reduced by reaction with burning charcoal and the resultant bloom was probably extracted from the furnace by breaking into the base of the shaft (ibid.) The furnace in Area 5 of the site exemplifies this theory with burnt clay fragments from the superstructure found within the fills of the pit along with slag and charcoal. This form of smelting, with small variations, continued into the post-medieval period until the development of the hot blast furnace in the early 18th century.

The isolated nature of the furnace is not unusual although large metalworking complexes, particularly associated with high status and 'royal' sites, are known, as at Knockaulin (Dún Ailinne) on the southeast side of the Curragh. At Cherryville, to the east of Kildare town and approximately 5km west-southwest of the site, eight furnaces, ranging in diameter from 0.35m to 1.75m, were excavated in 2001 (Breen 2001). Research on metalworking sites in the Midlands in 2015 found that the furnaces excavated were generally isolated features that probably indicated one-time smelting events (Dolan 2015).

The slag and charcoal will be analysed to ascertain the technology and fuel that was used in the furnace and determine a time period. The furnace may be another feature of an early medieval landscape which hints at efforts being made to improve agricultural output and organisation.

Prehistoric Pits, Area 6

A series of pits were uncovered close to the southern boundary of the site towards the western end. One of the pits contained a sherd of prehistoric pottery along with flint scraper while a second pit contained a thumbnail scraper as well as charcoal, burnt bone and burnt stone. Although these two pits are the only features that produced definitively prehistoric artefacts, there were six other pits within the vicinity that may be related. The features were scattered over an area measuring 17.2m east to west and 5.4m north to south.

Thumbnail (small convex) scrapers are particularly associated with Beaker, or

Sherd of probable Late Bronze Age pottery retrieved from pit C121 (top)

Mid-ex view of trough C17, looking east (centre)

Mid-ex view of trough excavated in 2019, loking west (bottom)

Chalcolithic, era pit depositions (Carlin 2018). 'Beaker' refers to a style of pottery vessel that appeared throughout Europe in the later part of the 3rd millennium B.C. and in Ireland after 2450 B.C. (Mount 2012).

The ceramic fragment recovered from Pit C121 has yet to be identified and dated but is probably from the Late Bronze Age.

Fulacht Fiadh, Area 6

The remains of a second fulacht fiadh was uncovered during the Phase 2 excavation. It was similar to the Phase 1 remains in that it consisted only of a trough (C17) and the associated burnt mound had been ploughed away during the intervening millennia. Hawkes, in his recent publication on prehistoric burnt mounds in Ireland has suggested a number of categories to help compare these site types (Hawkes 2018, 111-114). Both of the fulachtaí fia sites uncovered at Rathbride Road can be categorised as Type 3-4, a trough with little or no surviving burnt mound material (ibid., 112). The trough was lined with clay to keep it water-tight, a feature shared with the Phase 1 trough. There were at least two phases of activity indicated by a cut in the base of the trough possibly formed while emptying it for further use.

Burnt spreads and associated troughs, commonly known as fulachtaí fia, are broadly dated to the Bronze Age, though examples from the preceding Neolithic and the later Iron Age are known. These features were used to heat water using stones heated in a fire. The exact purpose of the heated water is still a matter of debate with the broadly accepted theory that it was used for cooking meat. Other theories include brewing (Quinn & Moore 2009), bathing (Lucas 1965; Ó Drisceoil 1988), and processing of materials (Denvir 1999; Brown et al 2016). The abundance of these sites indicates that these were a fairly common feature to the people of the Bronze Age and were probably utilised for a variety of purposes.

Analysis of the charcoal samples taken from the troughs will indicate the type of fuel used, thus indicating the vegetation of the surrounding

environment, and potentially if they were seasonal. Radiocarbon dating will indicate when the fulacthaí fia were in use.

Kiln 3, Area 1

A truncated kiln (Kiln 3, C38) was located near the centre of the site, the third uncovered within the overall development. Kilns were essential to cereal processing for a number of reasons. The process reduced the moisture content of the grains, preventing rot during storage. It also fumigated the crop for insects such as the grain weevil (Monk & Kelleher 2005). Drying also facilitated the grain for threshing and milling and aided the malting process (McQuade et al. 2009, 198). Kilns were valuable resources and owned and operated by high status members of the community. Only shares of a kiln were afforded to lower class farmers (ibid.). In the case of the Rathbride Road kilns these may well have been owned by the famous and powerful medieval abbey of St Brigid or in later medieval times by the Anglo-Norman Lords of Leinster.

The earliest evidence of cereal-drying kilns in Ireland have come from relatively recent excavations, placing some structures firmly in the Bronze Age (2200-700 BC). These include two examples from Tipperary, one from Knockgraffon (McQuade et al. 2009, 33) and another from Carrigatogher (Harding) townland near Nenagh (Hackett 2010). The cereal-drying kiln continued in use, in one form or another, right into the twentieth century in Ireland.

Kilns are essentially formed of three components, the drying chamber in which the grain would have been spread over an elevated wattle or woven straw floor, the firing chamber in which the hearth was placed, with room for stoking and tending the fire, and the flue, a channel between the two chambers. The structures were dug into the subsoil with a covering roof of clay, sod, or straw above the ground.

Kiln forms have been classified into four types: the figure-of-eight shaped, the dumb-bell shaped, the comma-shaped and the keyhole-shaped (Monk & Kelleher 2005). These are

Post-ex view of Kiln 3, looking southwest (top)

Post-ex view of Kiln 1 excavated in 2019, looking east (centre)

Post-ex view of Kiln 2 excavated in 2019, looking east (bottom)

based on the shape in plan of the features as they appear in the ground. The first phase of the Rathbride Road site had two of these forms – a comma-shaped-kiln in Field 1, and a dumb-bell-shaped kiln in Field 2. Unfortunately it was not possible to classify the kiln excavated in Phase 2 with certainty, though it appears to have been keyhole-shaped.

The figure-of-eight type appears to be the earliest form of kiln with examples from the Bronze and Iron ages, while dumb-bell and keyhole types have been dated from the Iron Age into medieval times (Monk & Power 2014). All forms of kilns have some examples of being fully or partially stone lined, as encountered in Phase 1. There was no evidence of a stone lining in the Phase 2 kiln and it was smaller than the Phase 1 kilns.

It has been noted that many kilns were located within or close to field boundaries, whether they be ditches, banks, or other boundary types (Monk & Kelleher 2005). Both of the Phase 1 kilns were truncated by later medieval filed boundaries, but these boundaries may have been established in some form during the lifetime of the kilns. The Phase 2 kiln (C38) was also close to a field boundary, which may have influenced the locating of the kiln.

A fragment of a possible quern stone found within the kiln will be subject to post-excavation analysis. Confirmation of this and possible identification of the type of quern stone may help to date the kiln. Radiocarbon dates will also be obtained from all three kilns on the site. The phase 2 kiln was smaller and appeared to be simpler in form than the Phase 1 kilns. The radiocarbon dates may prove that it was an earlier precedent to the more impressive kilns. Samples taken from the deposits within the kilns will be analysed for the presence of charred seeds. Identification of the grains from the three kilns will provide a greater understanding of the land use and cereal production in the area.

Agricultural field boundaries

Five field boundary ditches and a couple of field drains were investigated during Phase 2. The east to west running ditches at the north and south of the site are also townland boundaries. Three of the ditches contained post-medieval material (C35, C50 and C106). An east-west running ditch and probable former townland boundary (C104) did not produce any dateable material except charcoal. The townland boundary to the south of the site could not be fully investigated due to the dense vegetation of the hedgerow.

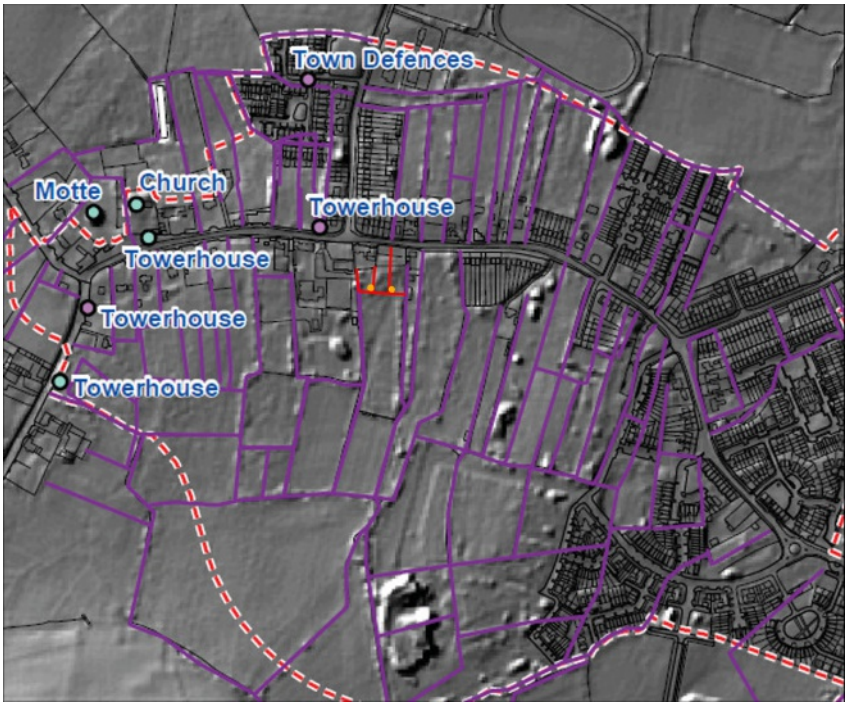
During Phase 1 of the development a medieval field system was traceable with indications of an early medieval layout relating to the positioning of the kilns. No medieval artefacts were recovered during Phase 2 from the ditches although it is likely that the townland boundaries are at least Anglo-Norman in date.

The medieval ditch that truncated the kilns lines up with the eastern boundary of Cloghgerret Glebe to the north and with a kink in Bishopsland townland to the south suggesting a more linear division of land was initially created in the Anglo-Norman period, which became more fragmentary in later years, or following the Dissolution. A similar fragmentation of church landholdings can be seen at Swords, Co. Dublin where the large former ecclesiastic manor was broken up and divided amongst smaller religious communities, or ecclesiastic and private individuals in the late medieval and post-medieval period. The linear field system established within this landscape in the medieval period continued to be used throughout the post-medieval period and up until recent times. The post-medieval field ditches were used to subdivide the long linear strips.

The Ordnance Survey map of the c. 1830s shows no sub-division within Fields 1and 2 of the site, though it is possible the shallow ditches uncovered may not have been substantial enough to be mapped by the Ordnance Survey.

In the 17th century this land (along with the lands directly to the west) are referred to as 'Cloghgarret and Farrincooley. Bounded on the west with Dunmurry Lane, on the east with Rathbride [Lane] and on the north and south with bishop's land' (No. 33; Emerson, cited in Andrews 1986, 11). The name Cloghgarret is retained in the glebe lands (bishop's land)

Plan of the Anglo-Norman town of Newcastle Lyons with two kiln marked in orange thet were identified at the rear of burgage plots (after Giacometti 2015b). It also appeared that the Newcastle Lyons kilns were shared between two plots. While the kilns at Rathbride Road are likely to be earlier, they are set back from the road to the east and their location may also have been influenced by linear plots extending from the road (top)



First Edition Ordnance Survey map showing the site outline in orange and the location of the medieval ditch identified in Pahe 1 in black (centre) with the excavation results shown below (bottom). The ditch appears to follow the line of the townland and parish boundary to the north and the kink in the boundary to the south, which preserve the line of a medieval boundary.

directly north of the excavation, and the name Farrincooley survives in a modern development in Bishopsland directly to the south of the excavation. Cloghgarret translates as Gearóid's Rock (www.logaimn.ie). Though there was no record of the townland being glebe lands in the 19th century (ibid.), the name presumably preserving the tradition that the lands were once held by the church. The 'Gearoid' element may be a reference to one of the Earls of Kildare.

Farrincooley is more difficult to translate. The initial component translates as land (Joyce 1910, 586). The 'cooley' portion may translate as corner, angle or back (ibid., 530-1), giving us 'the back land' or 'the land of the corner or angle' as a translation. The site lies within a strip of Kildare townland almost completely cut off from the remainder of the townland by Bishopsland so perhaps 'the back land' would be an appropriate translation.

Based on the results of the Phase 1 excavation some of the townland boundaries in the immediate vicinity of the site are likely to have been laid out during the Anglo-Norman period, and it is possible that some of these were informed by earlier medieval boundaries. The Phase 2 ditches at the north (C104) and the south (C20) of the site follow these townland boundaries although no datable evidence was recovered from either during the excavation.

There is some indication that the townland boundary to the south may be significantly earlier, or preserve the route of a former watercourse. The positioning of the fulacht troughs adjacent to this east-west boundary may indicate that a stream was previously present along this line, which informed the positioning of the fulachtai fia, as these features require a water source. As these features are likely to be Bronze Age in date, this suggests that some of the boundaries on the vicinity of the site followed natural features that were recognised in the landscape for centuries or even millennia. Whether a stream here would have been seen as a boundary to those using it in the Bronze Age is unknown. The stream was no longer extant in the 19th century when the First Edition Ordnance Survey was mapped, however the presence of the townland bopundary here may indicate it survived into the medieval period.

Distribution of troughs (highlighted in red) along east-west alignment, which includes the townland boundary to the west (highlighted in blue). This may indicate the townland boundary preserves a much earlier boundary alingnment

Section 5 Conclusion

Agriculture is represented from the earliest phase of activity on the site, dating to the Early Neolithic, in the form of a saddle quern, a stone used for grinding grain, uncovered during the Phase 1 excavation. It is prosaic that thousands of years later agriculture, and indeed grain processing, is still a key activity within the site, though now on perhaps a larger scale and associated with the religious community at Kildare. The order and organisation of the landscape suggested by the kilns, the small enclosures and the possible barn demonstrate the power of this religious community.

The pits uncovered at during Phase 1 may represent a cluster of offering pits in a relatively isolated location. At present there is little evidence of human occupation in the region during the Early Neolithic period. The pits may indicate that this area was occupied in c. 3900-3600BC, and it is possible further evidence of Early Neolithic settlement will be uncovered nearby in the future (Giacometti et al. 2020, 35).

The pits uncovered during Phase 2 and the fulachtaí fia are probably Bronze Age in date. These features may represent aspects of a more occupied landscape, with the Curragh to the northeast clearly being a significant focal point from the Bronze Age.

Post-excavation analysis

Artefacts

The excavation at Rathbride Road returned a small but important assemblage of artefacts, which will be analysed during the post-excavation works. The analysis of the prehistoric pottery from the site will be undertaken by Eoin Grogan.

Niamh Kelly will be analysing the possible fragment of a quernstone retrieved from the kiln in Area 2.

The analysis of post-medieval artefacts will carried out in-house by Antoine Giacometti.

Bone

The animal bone assemblage will be sent to Ruth Cardon for analysis. Much of the bone was collected from agricultural features as well as within the enclosure gully and pits within the enclosure.

The samples of burnt bone retrieved from one posthole in Area 2, a pit in Area 5 and one of the prehistoric pits in Area 6 will be sent to Denise Keating for analysis.

Environmental

The environmental analysis will be carried out by Lorna O'Donnell (charcoal) and David Stone (seeds). It is hoped that the analysis of the samples from the kiln will help us understand the fuel selected for use in the kiln and the seeds that were being dried within them. This will help us understand the landscape in the immediate vicinity of the kiln.

Analysis of the samples from the fulacht fiadh should also help us understand the fuel selected at the site, and identify what the local woodland cover was like in its immediate vicinity, presumably in the Bronze Age.

The analysis of the samples from the prehistoric pits will also provide a snapshot of the local environment at that time. It may also help us identify if any other materials that were deposited and determine whether the pits were depositional or settlement related.

References

Andrews, J.H. 1986 *Irish Historic Towns Atlas, No. 1, Kildare*. Royal Irish Academy, Dublin.

Bermingham, N., Coyne, F., Hull, G., Reilly, F. & Taylor, K. 2013 *River Road, the archaeology of the Limerick Southern Ring Road*. NRA Scheme Monographs 14. The National Roads Authority, Dublin.

Bhreathnach, E. 2014 *Ireland in the Medieval World, AD 400-1000*. Four Courts Press, Dublin.

Bolger, T. 2008 Excavations at Kilgobbin Church, Co. Dublin. *The Journal of Irish Archaeology*, **17**, pp. 85–112.

Boyd, R. 2009 The Irish Viking Age: A Discussion of Architecture, Settlement Patterns, and Identity. *Viking and Medieval Scandinavia*, **5**, pp. 271–294.

Brown, A.G., Davis, S.R., Hatton, J., O'Brien, C., Reilly, F., Taylor, K., Dennehy, E., O'Donnell, L., Bermingham, N., Mighall, T., Timpany, S., Tetlow, E., Wheeler, J. & Wynne, S. 2016 The environmental context and function of burnt mounds: new studies of Irish fulachtai fiadh, *Proceedings of the Prehistoric Society*, **82**, pp. 259-290. Published online 17/8/2016, doi:10.1017/ppr.2016.7

Carlin, N. 2011 *A proper place for everything: the character and context of Beaker depositional practice in Ireland*. Unpublished PhD thesis submitted to University College Dublin.

Carlin, N. 2018 *The Beaker Phenomenon? Understanding the character and context of social practices in Ireland 2500-2000 BC*. Sidestone Press, Dublin

Caulfield, S. 1977 The Beehive Quern in Ireland. T*he Journal of the Royal Society of Antiquaries of Ireland*, **107**, pp. 104–138.

Chapple, R.M. 2019a *Catalogue of Radiocarbon Determinations & Dendrochronology Dates (March 2019 release)*. Oculus Obscura Press, Belfast.

Chapple, R.M. 2019b *Geolocated radiocarbon dates from Ireland*. Available online at www.public.tableau.com/profile/rmchapple#!/vizhome/FunctionalityTest01/DateSelection Accessed 10/11/2020.

Clancy, P. 2005 The Curragh, Co. Kildare – the archaeology of an ancient grassland. *Archaeology Ireland Heritage Guide*, **31**, Wordwell Ltd., Dublin.

Clarke, L. & Long, P. 2009 *N7 Nenagh to Limerick High Quality Dual Carriageway archaeological resolution project, Sallymount Site 1, E3420, Co. Limerick*. Final excavation report courtesy of Headland Archaeology Ltd.

Conboy, G. 2001 *M4 Celbridge Interchange Scheme. Archaeological excavation of corn-drying kilns and ditch, Site 7, Kilmacredock Upper, Co. Kildare, Final Report, Licence No. 01E0547*. Unpublished report courtesy of Valerie J. Keeley Ltd.

Connolly, A. 1994 Saddle Querns in Ireland. *Ulster Journal of Archaeology*, **57**, pp. 26–36.

Denvir, A-M. 1999 *Fulachta fiadh – An Irish mystery*. Undergraduate thesis published online at www.angelfire.com/fl/burntmounds, accessed 14/09/2020.

Dolan, B. 2016 Making iron in the Irish midlands: the social and symbolic role of Iron Age ironworkers. *The Journal of Irish Archaeology*, **25**, pp. 31-48.

Gardiner, M. 2013 Stacks, barns and granaries in early and high medieval England: crop storage and its implications, in A. Vigil-Escalera Guirado, G. Bianchi & J.A. Quirós Castillo (eds.)

Horrea, barns and silos: storage and incomes in early medieval Europe, Documentos de arquelogía medieval 5. Servicio editorial de la UPV/EHU, Bilbao.

Gent, H. 1983 Centralized storage in later prehistoric Britain: four-post structures in hillforts as granaries for buffer supplies, *The Proceedings of the Prehistoric Society,* **49**, pp. 243-267.

Giacometti, A., McGlade, S. & Ruddy, S. 2020 *Preliminary excavation report, Rathbride Road, Kildare, Licence No. 17E0125*. Report courtesy of Archaeology Plan.

Giacometti, A. 2017 *Archaeological testing report, lands of Rathbride Road, Kildare, Licence No. 17E0125*. Unpublished report courtesy of Archaeology Plan.

Giacometti, A. 2015 *Excavations at Seamount, Malahide, Co. Dublin, Licence No. 14E0161*. Unpublished report courtesy of Archaeology Plan.

Giacometti, A. 2015b *Excavations at St. Finian's School, Newcastle, Co. Dublin, Licence No. 13E0438*. Unpublished report courtesy of Archaeology Plan.

Giacometti, A. 2010 *Preliminary excavation report, Donacarney Great, Bettystown, Co. Meath, Licence No. 07E451*. Unpublished excavation report courtesy of Arch-Tech Ltd.

Grogan, E. & Roche, H. 2020 *The prehistoric pottery from Rathbride Road, Co. Kildare (17E0125).* Unpublished report prepared for Archaeology Plan.

Hackett, L. 2010 The earliest cereal-drying kiln in Ireland? *Seanda, NRA Archaeology Magazine,* **5**. pp. 34-35. National Roads Authority, Dublin.

Hawkes, A. 2018 *The Archaeology of Prehistoric Burnt Mounds in Ireland*. Archaeopress, Oxford.

Joyce, P.W. 1910 *The origin and history of Irish names of places*. M.H. Gill & Son, Dublin.

Kerr, T.R., Harney, L, Kinsella, J, O'Sullivan, A., & McCormick, F. 2010 *Early medieval dwellings and settlements in Ireland, AD 400-1100*, Vol. 1 text. Early Medieval Archaeology Project (EMAP) report on the Heritage Council INSTAR Programme. University College Dublin and Queens University Belfast.

Leigh, J. 2020 *Geophysical survey report, Rathbride Road, Kildare, Co. Kildare, Licence No. 20R0117*. Unpublished report produced for Archaeology Plan.

Lucas, A.T. 1965 Washing and bathing in ancient Ireland, *Journal of the Royal Society of Antiquaries of Ireland*, **95**, pp. 78-79

McGlade, S. 2020a *Archaeological assessment, Rathbride Road Phase 2, Kildare*. Unpublished report courtesy of Archaeology Plan.

McGlade, S. 2017 *Preliminary excavation report, Site D, Alexander Reid, Navan, Licence No. 16E0449*. Unpublished report courtesy of Archaeology Plan.

McLaughlin, T.R., Whitehouse, N.J., Schulting, R.J., McClatchie, M., Barrat, P. & Bogaard, A. 2016 The changing face of Neolithic and Bronze Age Ireland: a big data approach to the settlement and burial records, *Journal of World Prehistory*, **29**, pp. 117-153.

McQuade, M., Molloy, B., Moriarty, C. 2009 *In the Shadow of the Galtees, Archaeological investigations along the N8 Cashel to Mitchelstown Road Scheme*. Wordwell, Dublin.

Monk, M. 1981 Post-Roman drying kilns and the problem with function, in D. Ó Corráin (ed.) *Irish Antiquity*. Tower Books, Cork, pp. 216-230.

Monk, M.A., & Kelleher, E. 2005 An Assessment of the Archaeological Evidence for Irish Corn-Drying Kilns in the Light of the Results of Archaeological Experiments and Archaeobotanical Studies. *The Journal of Irish Archaeology*, **14**, pp. 77–114.

Monk, M. & Power, O. 2014 Casting light from the fires of corn-drying kilns on the later Irish Iron Age. *Archaeology Ireland,* **28 (3)**, pp 39-42. Wordwell, Dublin.

Mount, C. 2012 A Note on Some Beaker Period Pit Burials in Ireland. *The Journal of Irish Archaeology*, **21**, pp. 1–6.

Mount, C. 2013 *Brownstown, Co. Kildare excavation project*, blog entry available online at: http://charles-mount.ie/wp/index.php/brownstown-co-kildare-excavation-project/ Accessed 05/03/2020.

Ní Líonáin, C. 2008 *Final excavation report on site of hotel development, Stamullin, Co. Meath, Licence No. 05E1271*. Unpublished Report courtesy of Arch-Tech Ltd.

O'Connell, A. 2009 Director's first findings from excavations at Lismullin 1, in M. Deevy & D. Murphy (eds.) *Places along the Way: first findings on the M3*. NRA Scheme Monographs 5, The National Roads Authority Dublin, pp. 21-42.

Ó Drisceoil, D. 1988 Burnt mounds: cooking or bathing? *Antiquity*, **62**, pp. 671-8.

O'Kelly, M.J. 1954. Excavations and experiments in ancient Irish cooking-places. *Journal of the Royal Society of Antiquaries of Ireland*, **84**, pp. 105-55.

O'Sullivan, M. & Downey, L. 2005 Know your monuments: corn-drying kilns, *Archaeology Ireland*, **19 (3)**, pp. 32-35.

Otway-Ruthven, J. 1959 The Medieval County of Kildare. *Irish Historical Studies,* **11**, no. 43, pp. 181-199.

Quinn, B. & Moore, D. 2009 Fulacht fiadh and the beer experiment, in Stanley et al (eds.) *Dining & Dwelling*. NRA Monograph Series No. 6. The National Roads Authority, Dublin, pp. 43-53.

Rondalez, P. 2017 The Irish bowl furnace: origin, history and demise, *The Journal of Irish Archaeology,* **26**, pp. 101-116.

Smyth, J. 2014 *Settlement in the Irish Neolithic, new discoveries at the edge of Europe*. Prehistoric Society Research Paper 6, in association with the Heritage Council, Ireland. Oxbow Books, Oxford.

Smyth, J. 2012 Breaking ground: an overview of pits and pit-digging in Neolithic Ireland, in H. Anderson-Whymark & J. Thomas (eds.) *Regional perspectives on Neolithic pit deposition: beyond the mundane*. Neolithic Studies Group Seminar Papers 12. Oxbow Books, Oxford, pp. 13-29.

Tobin, R. 2003 Houses, Enclosures and Kilns: Excavations at Corbally, Co. Kildare. *Archaeology Ireland*, **17 (3)**, pp. 32–37.

Wallace, A. & Anguilano, L. 2010 Iron-smelting and smithing: new evidence emerging on Irish road schemes in M. Stanley, E. Danaher, J. Eogan, (eds.) *Creative Minds*, pp. 69-84. Archaeology and the National Roads Authority Monograph, Dublin.

Whitehouse, N. J., Schulting, R. J., McClatchie, M., Barratt, P., McLaughlin, T. R., Bogaard, A., et al. 2014 Neolithic agriculture on the European western frontier: The boom and bust of early farming in Ireland. *Journal of Archaeological Science*, **51**, pp. 181–205.

Appendix A Context Register

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
1	Cut		C2	0.61	0.61	0.11	Pit	Plectrum shape in plan, shallow bowl shape in profile. Sharp b.o.s at top and straight sides, steeper at W. Imperceptible b.o.s at base to E and more gradual on all other sides. Flat base. Cuts plough furrow C7	C2	C8	Area 2
2	Fill	C1		0.61	0.61	0.11	Single fill of pit	Mid brown silty clay with moderate to loose compaction. Rare charcoal fleck inclusions.	Topsoil	C1	Area 2
3	Cut		C4	>3.9	0.38	0.22	Field drain	Linear shape in plan and U-shaped in profile. Sharp b.o.s at top, straight, vertical sides and sharp b.o.s to concave base. E-W orientation.	C4	Natural	Area 2
4	Fill	C3		>3.9	0.38	0.22	Stony fill of field drain	Mid brown clayey silt and stones. Stones were an average of 0.1m in dimension and subangular and subrounded. Frequent charcoal flecks and occasional animal bone inclusions.	Topsoil	C3	Area 2
5	Cut		C6	>2.7	0.44	0.26	Field drain	Linear shape in plan and U-shaped in profile. Sharp b.o.s at top, straight, vertical sides and sharp b.o.s to concave base. E-W orientation. Similar in size, orientation and fill composition to C3 and C45	C6	Natural	Area 2
6	Fill	C5		>2.7	0.44	0.26	Fill of field drain	Dark brown stony silty clay well compacted. Occasional animal bone fragments and frequent charcoal inclusions.	Topsoil	C5	Area 2

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
7	Cut		C8	6.6	0.34	0.13- 0.18	Probable furrow	Linear shae in plan and uneven V-shape in profile. Sharp b.o.s at top. E side is straight and vertical, W side is more gently sloping, almost convex. Sharp b.o.s to concave base. NNE-SSW orientation. Terminates to the south just beyond where it is cut by pit C1	C8	Natural	Area 2
8	Fill	C7		6.6	0.34	0.13- 0.18	Sterile fill of probable furrow	Mid brown silty clay moderately compacted. Occasional small stone inclusions. Stonier on surface towards the south.	C1	C7	Area 2
9	Cut		C10, C11	0.56	0.43	0.2	Metalworking furnace	Subcircular shape in plan and bowl-shaped in profile. Sharp b.o.s at top. Steep sides but uneven due to being cut into loose gravel subsoil. Sharp b.o.s to concave base.	C11	Natural	Area 5
10	Fill	C9		0.51	0.4	0.15	Upper fill of metalworking furnace	Mottled brown/orange/black/yellow burnt clay and charcoal in brown silt. Moderately compacted. Frequent slag inclusions.	Topsoil	C11	Area 5
11	Fill	C9		0.42	0.36	0.1	Basal fill of metalworking furnace	Black/dark brown charcoal and silt moderately compacted. Moderate inclusions of burnt clay and slag.	C10	C9	Area 5
12	Cut		C13, C14	0.81	0.68	0.14	Pit	Suboval shape in plan and bowl-shaped in profile. Sharp b.o.s at top. Mostly concave sides but straight 45° to the N. Gradual b.o.s to concave base. Heavily impacted by root activity.	C14	Natural	Area 1

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
13	Fill	C12		0.5	0.37	0.11	Upper fill of pit	Dark reddish brown silty sand moderately compacted. Frequent charcoal and moderate burnt clay inclusions. Significant root disturbance. Probably waste material from nearby kiln.	Topsoil	C14	Area 1
14	Fill	C12		0.81	0.68	0.14	Lower fill of pit	Mid reddish brown silty sand well compacted. Occasional charcoal inclusions. Root disturbance.	C13	C12	Area 1
15	Cut		C16	1.22	0.96	0.32	Pit	Subrectangular shape in plan with rounded corners. Basin shaped in profile. Sharp b.o.s at top, shallow steep sides and gradual b.o.s. to irregular but mostly flat base.	C16	Natural	Area 1
16	Fill	C15		1.22	0.96	0.32	Fill of pit	Dark greyish orange brown silty clay well compacted. Frequent small stones and gravel and occasional larger stone inclusions.	Topsoil	C15	Area 1
17	Cut		C18, C19	1.9	1.6	0.7	Trough/cistern	Oval shape in plan, U-shape in profile. Sharp b.o.s at top and steep sides to the W but more gently sloping to the E. Later than lower cut C28. Long axis N-S. Filled with burnt stone indicating an association with a fulacht fiadh.	C30	C29	Area 6
18	Fill	C17		1.6	1	0.36	Basal fill of trough/cistern	Dark greyish brown clayey silt loosely compacted. Frequent burnt stone inclusions and charcoal.	C19	C30	Area 6
19	Fill	C17		1.72	1.6	0.38	Upper fill of trough/cistern	Dark greyish brown clayey silt well compacted. Frequent burnt stone and charcoal. Significant root activity.	C20	C18	Area 6

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
20	Cut		C21	>2	>0.4	>0.1	Drain running along S boundary	Linear shape in plan running E-W. Not fully excavated as the S side was beyond the L.O.E. N side truncates trough/cistern. N side has a gradual b.o.s at top and gently sloping side. Sharp b.o.s to concave base.	C21	C19	Area 6
21	Fill	C20		>2	>0.4	>0.1	Fill of drain	Light greyish brown silty clay moderately compacted. No inclusions.	Topsoil	C20	Area 6
22	VOID										
23	VOID										
24	Cut		C25	1.09	0.3-0.58	0.11-0.15	Kiln or part of a kiln	Irregular keyhole or 8-shape in plan. Irregular profile with shallow bowl shape to E. Gradual b.o.s at top to W, sharp to E. Concave sides and gradual b.o.s to concave base. Truncated to E by modern machine tracks and disturbed at top by traffic. Scorched red along sides and base. Possibly a part or phase of kiln C38.	C25	Natural	Area 1
25	Fill	C24		1.09	0.3-0.58	0.11-0.15	Fill of (part of?) kiln	Greyish brown and black silty sand well compacted. Occasional stone, moderate charcoal inclusions.	C26	C24	Area 1
26	Cut		C27	0.88	0.8	0.15	Pit assoc. with kilns	Circular shape in plan and shallow bowl shaped in profile. Imperceptible b.o.s at top except at SE where it is more gradual. Sides are slightly concave where perceptible. Imperceptible b.o.s at base except at SE. Base is flat and irregular. Truncates kilns C24 and C38. Probably truncated at top by modern activity.	C27	C25, C39	Area 1

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
27	Fill	C26		0.88	0.8	0.15	Fill of pit	Light yellowish brown sandy clay well compacted. Occasional charcoal inclusions.	Topsoil	C26	Area 1
28	Cut		C29	0.54	0.5	0.17	Earlier cut of trough/cistern	Suboval shape in plan - straigh sides at W and S but more rounded on N and E sides. Basin shape in plan sloping down to the S. Sharp b.o.s at top, straight sides and sharp b.o.s to flat sloping base. This cut was found at the base of the trough/cistern C17 and contained similar fill but more compacted than C18 indicating that it was an earlier cut of the trough/cistern.	C18	Natural	Area 6
29	Fill	C28		0.54	0.5	0.17	Fill of earlier trough/well	Dark greyish blackish brown silty clay well compacted. Frequent burnt stones.	C30	C28	Area 6
30	Lining	C17		2.15	1.6	0.1	Lining of trough/cistern	Mid orangish brown, mottled with black and grey, clay. Well compacted. Occasional stones, burnt stones and charcoal inclusions. Lines the the cut of the trough/cistern C17. Does not extend into C28. Sone root disturbance.	C18	C17	Area 6
31	Cut		C32	0.76	0.55	0.04	Relatively modern sheep burial	Suboval shape in plan, shallow bowl shape in profile. The top of the cut was witin the ploughsoil and removed while stripping. Top and sides truncated. Gradual b.o.s to uneven base. Long axis E-W	C32	Natural	Area 2
32	Fill	C31		0.76	0.55	0.04	Fill of pit containing sheep skeleton	Dark brown silty clay well compacted. Contains sheep skeleton and occasional stone inclusions. Also contained fragments of coal. Top of feature truncated.	Topsoil	C31	Area 2

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
33	Cut		C34	0.41	0.38	0.17	Posthole	Subcircular shape in plan and basin shaped in profile. Sharp b.o.s at top, steep sides and gradual b.o.s to flat base.	C34	Natural	Area 2
34	Fill	C33		0.41	0.38	0.17	Fill of posthole	Light greyish brown silty clay well compacted. Contained large angular packing stones and moderate charcoal inclusions.	Topsoil	C33	Area 2
35	Cut		C36, C37		1.14	0.38	Field boundary ditch	Linear shape in plan running E-W. Basin shaped in profile. Sharp b.o.s at top, steep straight sides and sharp b.o.s to flat base. Cut and fills are root affected as it ran under the hedgerow between fields 1 and 2.	C36	Natural	Area 1 and 2
36	Fill	C35			0.66	0.09	Basal fill of field boundary ditch	Greyish brown gravelly clay loosely compacted. Occasional charcoal inclusions. Contained a fragment of red brick. Root affected	C37	C35	Area 1 and 2
37	Fill	C35			1.14	0.28	Upper fill of field boundary ditch	Mid orangish brown sandy silt. Moderate to loose compaction. Frequent small subangular stones and occasional snail shell fragments. Significantly root affected.	Topsoil	C36	Area 1 and 2

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
38	Cut		C39, C40	2.46	1.4	0.46	Kiln	Overall shape in plan was disturbed by modern activity - rounded to the W. Bowl shaped to the W, shallower to the E. Sharp b.o.s at top to the W, gradual to imperceptible or disturbed to the E. Concave sides at the W, shallower and slightly concave to the E. Gradual b.o.s to concave base at W. Heavily fire affected at the E but fades towards the W suggesting the W side to be the drying chamber.	C40	Natural	Area 1
39	Fill	C38		1.16	1.29	0.27	Upper fill of the W bowl of kiln	Mid brown sandy clay well compacted. Occasional charcoal and moderate stone inclusions. May have extended to the E side of the kiln but this has been disturbed.	Topsoil	C40	Area 1
40	Fill	C38		2.44	1.29	0.27	Lower fill of kiln	Greyish brown and black silty sand well compacted. Frequent charcoal and occassional stone inclusions	C39	C38	Area 1
41	Cut		C42	0.48	0.35	0.1	Shallow pit	Suboval shape in plan and shallow bowl shape in profile. Sharp b.o.s at top, shallow, gently sloping sides and gradual b.o.s to uneven base. The irregular shape and loose compaction of the fill may indicate that this is a result of agricultural activity or root disturbance rather than a pit.	C42	Natural	Area 2
42	Fill	C41		0.48	0.35	0.1	Fill of shallow pit	Mid brown clayey silt loosely compacted. Frequent small stones and pebbles, occasional charcoal and rare animal bone frag. Inclusions.	Topsoil	C41	Area 2

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
43	Cut		C44	0.64	0.4	0.19	Pit/posthole	Suboval shape in plan, U-shape in profile. Sharp b.o.s at top and steep sides. Sharp b.o.s at base on N side, more gradual on S. Uneven but mostly flat base.	C44	Natural	Area 2
44	Fill	C43		0.64	0.4	0.19	Fill of pit/ posthole	Light greyish brown, friable clayey silt. Frequent charcoal and small stones and occasional larger stone inclusions. Truncated to S by linear C45	C45	C43	Area 2
45	Cut		C46, C47	>1.4	0.82	0.23	Field drain	Linear shape in plan running E-W and terminating at the E just beyond pit C43. Basin shaped in plan. Gradual b.o.s at top, gently sloping sides and gradual b.o.s to flat base.	C46	C44	Area 2
46	Fill	C45		>1.4	0.7	0.08	Basal fill of field drain	Light yellowish brown silty, gravelly clay well compacted. Frequent charcoal, small stone and pebble inclusions.	C47	C45	Area 2
47	Fill	C45		>1.4	0.82	0.15	Upper fill of field drain	Mid greyish brown friable clayey silt, loosely compacted. Frequent small angular stone and occasional larger stone and charcoal inclusions.	Topsoil	C46	Area 2
48	Cut		C49	0.35	0.24	0.14	Small posthole	Oval shape in plan and basin shaped in profile. Sharp b.o.s at top, straight, steep sides and sharp b.o.s to concave base. Long axis NW-SE	C49	Natural	Area 2
49	Fill	C48		0.35	0.24	0.14	Fill of small posthole	Dark greyish brown silty clay well compacted. Moderate small angular stone and pebble inclusions. Occasional burnt bone and charcoal inclusions concentrated to the upper level of the fill.	Topsoil	C48	Area 2

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
50	Cut		C50	>40	1.27	0.39	Field boundary ditch	Linear shape in plan running N-S. Wide U-shape in profile. Sharp b.o.s at top and steep, slightly concave sides on the E, more gently sloping, slightly convex sides on the W. Sharp b.o.s at base on the E, more gradual on the W and an uneven but alfost flat base. Terminates at S 1m before the E-W running ditch C35.	C51	Natural	Area 3
51	Fill	C50		>40	1.27	0.39	Fill of field boundary ditch	Yellowish brown and grey clayey gravel. Loose compaction. Sterile at point where slot was inserted. Truncated by recut C52.	C52	C50	Area 3
52	Cut		C53	>40m	0.62	0.33	Recut of field boundary ditch	Linear shape in plan and U-shaped in profile, running N-S. Sharp b.o.s at top, steep, concave sides and gradual b.o.s to concave base.	C53	C51	Area 3
53	Fill	C52		>40	0.62	0.33	Fill of recut of field boundary ditch	Dark brown sandy silt loosely compacted. Moderate amounts of small stone inclusions.	Topsoil	C52	Area 3

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
54	Cut		C55	38.79	0.57 avg.	0.16 avg.	Curvilinear slot trench	Penannular shape in plan with an opening to the ESE. U-shaped in profile. Sharp b.o.s at top but in places this is less defined due to being cut into loose gravel and root disturbance. Sides are concave and vary from gently sloping to steep. Gradual b.o.s to concave base. Forms an enclosure 12.35m E-W by 11.35m N-S. Part of the eastern side has been degraded by modern activity. Several postholes and an L-shaped slot trench are located within the enclosure.	C55	Natural	Area 3
55	Fill	C54		38.79	0.57 avg.	0.16 avg.	Fill of slot trench	Mid orangish brown silt loosely compacted. Moderate stone and gravel inclusions. Rare charcoal and burnt bone inclusions. Also contained a very small amount of slag. Root affected particularly to the NW where a hedgerow was located above it.	C60	Natural	Area 3
56	Cut		C57	0.43	0.3	0.13	Small pit within penannular enclosure	Oval shape in plan and U-shape in profile. Sharp b.o.s at top from NW to NE, gradual at S and SE. Steep slightly concave sides. Gradual b.o.s to concave base.	C57	Natural	Area 3
57	Fill	C56		0.43	0.3	0.13	Fill of small pit	Mid orangish brown gravelly sandy silt loosely compacted. Heavily root affected.	Topsoil	C56	Area 3

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
58 (=62)	Cut		C59 (=C63)	4.25	0.58	0.11	N-S running leg of slot trench	N-S running leg of L-shaped (when viewed from W) slot trench within enclosure C54. The E-W running leg is C62. Linear shape in plan, alternates between U- and V-shape in profile. Gradual b.o.s at top. Straight side to W, slightly concave to E. Sharp b.o.s to tapered base.	C59	Natural	Area 3
59 (=63)	Fill	C58		4.25	0.58	0.11	Fill of N-S running leg of slot trench	Mid orangish brown sandy gravelly silt well compacted.	C64	C58	Area 3
60	Cut		C61	0.42	0.4	0.17	Pit cutting terminus of C54	Subcircular shape in plan and bowl shaped in profile. Sharp b.o.s at top and steep concave sides. Sharp b.o.s to flat base. The relationship between this pit and enclosure trench C54 was difficult to determine due to disturbance.	C61	C55	Area 3
61	Fill	C60		0.42	0.4	0.17	Fill of pit cutting terminus of C54	Dark reddish brown gravelly sandy silt loosely compacted.	Topsoil	C60	Area 3
62 (=58)	Cut		C63 (=C59)	8.1	0.38	0.11	E-W running leg of slot trench	E-W running leg of L-shaped (when viewed from W) slot trench within enclosure C54. N-S running leg is C58. Linear shape in plan, alternates between U- and V-shape in profile. Sharp b.o.s at top. Sides are mostly straight angled, slightly concave in places. Gradual b.o.s to narrow concave (occasionally V-shaped) base.	C63	Natural	Area 3
63 (=C59)	Fill	C62		8.1	0.38	0.11	Fill of E-W running leg of slot trench	Same as C59	C64	C62	Area 3

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
64	Cut		C65	0.5	0.35	0.12	Pit cutting E terminus of C62	Suboval shape in plan, U-shape in profile. Gradual b.o.s at top to the S, sharp to the N. Slightly concave sides. Gradual b.o.s to relatively flat base.	C65	C59/C63	Area 3
65	Fill	C64		0.5	0.35	0.12	Fill of pit cutting E terminus of C62	Mid orangish brown sandy clay moderately compacted. Frequent small stones and gravel.	Topsoil	C64	Area 3
66	Cut		C67, C68	1.16	0.76	0.4	Posthole	Irregular shape in plan, flat-bottomed V-shape in profile. Gradual b.o.s at top. Gently sloping sides near the top becoming vertical towards the base. Sharp b.o.s to flat base. The bottom of the feature was more defined with the upper part flaring outwards. This may be due to the loose natural gravel slumping after removal/decay of the post.	C68	Natural	Area 3
67	Fill	C66		0.46	0.3	0.26	Upper fill of posthole	Mid orangish brown silty clay moderately compacted. Occasional small stone inclusions.	Topsoil	C68	Area 3
68	Fill	C66		1.16	0.56	0.26	Lower fill of posthole	Dark greyish brown silty clay and gravel. Loose compaction.	C67	C66	Area3
69	Cut		C70	0.28	0.28	0.11	Small posthole	Subcircular shape in plan, bowl shaped in profile. Sharp b.o.s at top, concave sides and imperceptible b.o.s to concave base.	C70	Natural	Area 3
70	Fill	C69		0.28	0.28	0.11	Fill of small posthole	Dark reddish brown silty clay. Moderate compaction. Frequent small rounded pebble inclusions.	Topsoil	C69	Area 3

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
71	Cut		C72	0.34	0.3	0.12	Small posthole	Subcircular shape in plan, irregular U-shape in profile. Sharp b.o.s at top. Concave sides except vertical to W. Gradual b.o.s at base except sharp to W. Uneven base.	C72	Natural	Area 3
72	Fill	C71		0.34	0.3	0.12	Fill of small posthole	Mid brown silty clay. Moderate compaction. Moderate stone inclusions.	Topsoil	C71	Area 3
73	Cut		C74	0.26	0.25	0.12	Small posthole	Subcircular shape in plan, V-shape in profile. Sharp b.o.s at top. Slightly concave sides. Sharp b.o.s at tapered concave base.	C73	Natural	Area 3
74	Fill	C73		0.26	0.25	0.12	Fill of small posthole	Mid brown silty clay. Moderate compaction. Moderate stone inclusions.	Topsoil	C73	Area 3
75	Cut		C76	0.47	0.44	0.16	Posthole	Subcircular shape in plan, bowl shape in profile. Sharp b.o.s at top and concave sides. Sharp b.o.s to concave base.	C76	Natural	Area 3
76	Fill	C75		0.47	0.44	0.16	Fill of posthole	Dark reddish brown gravelly sandy silt. Loose compaction. Occasional larger stone.	Topsoil	C75	Area 3
77	Cut		C78	0.55	0.35	0.2	Posthole(s)	Suboval shape in plan, irregular profile - possibly two postholes. Bowl shaped to SW then rises and flattens before dipping again to the NE. Sharp b.o.s at top. Straight sides. Two subcircular depressions form the base.	C78	Natural	Area 3
78	Fill	C77		0.55	0.35	0.2	Fill of posthole(s)	Light brown stony clay. Loose compaction.	Topsoil	C77	Area 3
79	Cut		C80	0.48	0.28	0.19	Posthole	Circular shape in plan and U-shape in profile flaring outwards at the top. Sharp b.o.s at top. Steep sides. Sharp b.o.s at base. Concave base.	C80	Natural	Area 3
80	Fill	C79		0.48	0.28	0.19	Fill of posthole	Light brown gravelly silty clay. Loose compaction.	Topsoil	C79	Area 3

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
81	Cut		C82, C85	0.63	0.54	0.26	Fire pit?	Subcircular shape in plan, U-shape in profile. Sharp b.o.s at top. Straight steep sides. Gradual b.o.s to concave base. No evidence of scorching.	C85	Natural	Area 4
82	Fill	C81		0.63	12	0.15	Upper fill of fire pit	Dark brown silty clay. Moderate compaction. Occasional charcoal.	Topsoil	C85	Area 4
83	Cut		C84, C88, C89, C90, C91	0.95	0.81	0.37	Fire pit	Subcircular shape in plan, bowl shape in profile. Sharp b.o.s at top and concave sides. Gradual b.o.s to concave base.	C89	Natural	Area 4
84	Fill	C83		0.4	0.26	0.21	Fill of fire pit	Dark greyish black silty clay and charcoal. Loose compaction. Frequent stone inclusions. Result of secondary use of pit.	C90	C88	Area 4
85	Fill	C81		0.36	0.28	0.12	Basal fill of fire pit	Black silty clay and charcoal. Loose compaction.	C82	C81	Area 4
86	Cut		C87	>0.8	0.74	0.12	Pit	Subcircular shape in plan, basin shaped in profile. Sharp b.o.s at top. Steep straight sides. Sharp b.o.s to flat base. Truncated to the E and N by an animal burrow that runs SE-NW.	C87	Natural	Area 4
87	Fill	C86		>0.8	0.74	0.12	Fill of pit	Mid reddish brown gravelly clayey silt. Moderate compaction. Occasional charcoal flecks. Animal disturbance.	Topsoil	C86	Area 4
88 (=91)	Fill	C83		0.58	0.55	0.35	Phase of burning in fire pit	Mid brown silty clay. Loose compaction. Occasional charcoal and stone inclusions. Given a separate number to the N where it is reddened by fire.	C84	C89	Area 4
89	Fill	C83		0.95	0.81	0.09	Charcoal rich basal fill of fire pit	Dark grey/black silty clay and charcoal. Loose compaction.	C88/91	C83	Area 4
90	Fill	C83		0.42	0.3	10.5	Upper fill of fire pit	Mid brown silty clay. Loose compaction. Frequent stone and ocasional charcoal inclusions. Final silting event.	Topsoil	C84	Area 4

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
91 (=88)	Fill	C83		0.61	0.36	0.11	Same as C88	Heat reddened sandy clay. Same as C88 but affected by in situ burning.	C84	C89	Area 4
92	Cut		C93	0.54	0.45	0.14	Small pit	Suboval shape in plan, basin shape in profile. Sharp b.o.s at top and steep concavae sides. Sharp b.o.s to uneven but mostly flat base.	C93	Natural	Area 5
93	Fill	C92		0.54	0.45	0.14	Fill of small pit	Mottled mid brown and dark grey gravelly silt. Moderate to loose compaction. Occasional burnt bone and charcoal inclusions contained within the upper 0.05m of the fill.	Topsoil	C92	Area 5
94	Cut		C95	0.16	0.16	0.14	Stakehole	Subcircular shape in plan, V-shape in profile. Sharp b.o.s at top and steep uneven sides. Sharp b.o.s to tapered concave base.	C95	C103	Area 5
95	Fill	C94		0.16	0.16	0.14	Charcoal fill of stakehole	Black charcoal and silty gravel. Moderate to loose compaction.	Topsoil	C94	Area 5
96	Cut		C97	0.64	0.59	0.31	Small pit	Circular shape in plan but overcut so not clear in photos. Bowl shape in profile. Sharp b.o.s at top. Straight steep sides. Sharp b.o.s to concave base. Long axis E-W.	C97	Natural	Area 5
97	Fill	C96		0.64	0.59	0.31	Fill of small pit	Mid yellowish brown gravelly clayey silt. Moderate to well compacted. Rare charcoal fleck inclusions.	Topsoil	C96	Area 5
98	Cut		C99	0.3	0.2	0.19	Small posthole	Oval shape in plan (overcut to the N) and U shape in profile. Sharp b.o.s at top and straight steep sides. Sharp b.o.s to almost flat, slightly concave base. Long axis E-W.	C99	Natural	Area 5

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
99	Fill	C98		0.3	0.2	0.19	Fill of small posthole	Mid orangish brown gravell clayey silt. Moderate compastion. Frequent charcoal inclusions concentrated on the upper W side.	Topsoil	C98	Area 5
100	Cut		C101	0.36	0.34	0.19	Small posthole	Circular shape in plan (overcut to SE) and funnel shape in profile. Sharp b.o.s at top. Steeply sloping from top but vertical towards base. Sharp b.o.s to mostly flat slightly concave base. Long axis E-W.	C101	Natural	Area 5
101	Fill	C100		0.36	0.34	0.19	Fill of small posthole	Mid orangish brown gravelly clayey silt. Moderate compaction. Moderate charcoal inclusions.	Topsoil	C100	Area 5
102	Cut		C103	0.32	0.3	0.25	Posthole	Circular shape in plan and U-shape in profile. Sharp b.o.s at top and straight steep sides. Sharp b.o.s to mostly flat, slightly concave base.	C103	Natural	Area 5
103	Fill	C102		0.32	0.3	0.25	Fill of posthole	Pale brownish yellow gravelly clay. Moderate compaction. Moderate charcoal inclusions.	C94	C102	Area 5
104	Cut		C105	180	0.8	0.2	Field drain	Linear shape in plan running E-W the length of Field 1 from the hedgerow at the enclosure C54 to the W. U-shape in profile. Sharp b.o.s at top and shallow, gently sloping sides. Gradual b.o.s to concave base.	C105	Natural	Area 5
105	Fill	C104		180	0.8	0.2	Fill of field drain	Mid orangish brown clayey silt. Moderate compaction. Occasional charcoal flecking and frequent small (<0.15m dim.) subangular stones.	Topsoil	C104	Area 5

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
106	Cut		C107	180	0.75	0.25	Field boundary ditch or drain	Linear shape in plan running E-W north of and parallel to C104. Basin shape in plan. Sharp b.o.s at top with steep straight side to the S and steep concave side to the N. sharp b.o.s to flat base.	C108	Natural	Area 5
107	Fill	C106		180	0.75	0.25	Fill of field boundary ditch or drain	Dark greyish brown clayey silt. Moderate to loose compaction. Frequent small pebble and charcoal inclusions. Occasional post-med ceramic sherds and larger stones (<0.1m dim.)	Topsoil	C106	Area 5
108	Cut		C109, C110	0.74	0.63	0.24	Pit with 2 postholes	Subcircular shape in pland and basin shape in profile. Sharp b.o.s at top and steep straight sides. Sharp b.o.s to flat base with a slope downwards from the W. Long axis SE-NW. Posthole C113 is situated in the base and posthole C111 is adjacent to the SE side of the pit. Neither posthole was evident in section suggesting that they are earlier than or contemporary with the pit.	C109	Natural (C115?)	Area 5
109	Fill	C108		0.74	0.63	0.16	Lower fill of pit	Black silty charcoal. Moderate compaction. Moderate small stone and pebble and ocasional burnt stone inclusions. Visible insect activity	C110	C109, C114?, C115?	Area 5
110	Fill	C108		0.48	0.4	0.09	Upper fill of pit	Mottled black and mid greyish brown silty clay. Moderate compaction. Frequen charcoal and occasional burnt stone inclusions	Topsoil	C109	Area 5

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
111	Cut		C112, C115	0.25	0.22	0.2	Posthole at side of pit C108	Suboval shape in plan and U-shape in profile. Sharp b.o.s at top and straight steep sides. Sharp b.o.s to almost flat slightly concave base.	C112	Natural	Area 5
112	Fill	C111		0.14	0.11	0.2	Fill of posthole at side of pit	Orangish brown silty clay. Moderate compaction. Occasional small pebble inclusion.	C115	C111	Area 5
113	Cut		C114	0.1	0.1	0.09	Small posthole in base of pit C108	Circular shape in plan and U-shape in profile. Sharp b.o.s at top and steep straight sides. Sharp b.o.s to flat base.	C114	Natural	Area 5
114	Fill	C113		0.1	0.1	0.09	Fill of small posthole in base of pit	Dark grey sandy silt. Moderate compaction. Occasional charcoal and pebble inclusions.	C109, C108?	Natural	Area 5
115	Fill	C111		0.07	0.02	0.17	A result of bioturbation or fill of C111	Mid grey silty gravel. Moderate to loose compaction. Occasional charcoal fleck inclusions. Probably a result of the charcoal from C109 mixing with the loose natural gravel through insect activity/bioturbation.	C109	C112	Area 5
116	Cut		C117	1.25	0.8	0.28	Small pit	Y-shape in plan but probably originally oval with the branches formed by root disturbance. Sharp b.o.s at top on N and W sides, more gradual to S and E. Sides are steep at N and W but gently sloping at S and E. Sharp b.o.s at base to N and W, gradual to S and E. Flat base, slightly concave, slopes to NW.	C117	Natural	Area 6

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
117	Fill	C116		1.25	0.8	0.28	Fill of small pit	Dark greyish brown charcoal and clayey silt. Loose compaction. Occasional larger chunks of charcoal, burnt bone and burnt stone inclusions. Root disturbance.	Topsoil	C116	Area 6
118	Cut		C119	0.64	0.5	0.08	Small pit probably for a carcass	Circular shape in plan and bowl shape in profile. Gradual b.o.s at top, gently sloping sides and imperceptible b.o.s to concave base. Contained partially articulated animal bone and heavily root affected.	C119	Natural	Area 6
119	Fill	C118		0.65	0.5	0.08	Fill of small pit	Mid grey brown with occasional yellow mottling clayey silt. Moderate to loose compaction. Frequent gravel and sand inclusions. Contained partially articulated animal bones heavily affected by roots.	Topsoil	C118	Area 6
120	Cut		C141	3.45	0.43	0.06	Shallow curvilinear	Curvilinear shape in plan, basin shaped in profile. Gradual b.o.s at top and base. Gently sloping sides and flat base. Possibly agricultural furrow.	C141	Natural	Area 6
121	Cut		C129, C130	0.58	0.3	0.23	Small pit/ posthole	Oval shape in plan, U-shape in profile. Sharp b.o.s at top and steep sides. Sharp b.o.s to flat base.	C129	Natural	Area 6

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
122	Cut		C133, C134, C135	1.84	1.54	1.15	Pit/well	Subrectangular shape in plan with rounded corners. Basin shaped in profile. Sharp b.o.s at top and steep to vertical sides. Moderately sharp to gradual b.o.s. to flat base.	C135	Natural	Area 6
123	Cut		C136	0.77	0.5	0.095	Possible pit	Oval shape in plan made irregular by root disturbance. Bowl shape in profile. Sharp to gradual b.o.s at top. Sides are gently sloping becoming near vertical at the W. Sharp to very gradual b.o.s at base. Long axis N-S.	C136	Natural	Area 6
124	VOID										
125	Cut		C131	0.58	0.41	0.15	Pit	Suboval shape in plan, bowl shape in profile. Gradual b.o.s at top, gently sloping concave sides and imperceptible b.o.s to concave base.	C131	Natural	Area 6
126	Cut		C140	1.35	0.7	0.21	Pit	Oval shape in plan, bowl shape in profile. Gradual b.o.s at top, gently sloping sides and gradual b.o.s to concave base. Significant animal disturbance at the base.	C140	Natural	Area 6
127	VOID										
128	Cut		C137	0.32	0.27	0.15	Posthole/ small pit	Oval shape in plan, U-shape in profile. Sharp b.o.s at top. Steep sides. Imperceptible b.o.s to concave base.	C137	Natural	Area 6
129	Fill	C121		0.58	0.3	0.13	Basal fill of small pit/ posthole	Dark greyish brown charcoal and clayey silt. Moderate to loose compaction. Occasional small stone inclusions. Contained several burnt stones, pottery and worked flint.	C130	C121	Area 6

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
130	Fill	C121		0.58	0.3	0.11	Upper fill of small pit/ posthole	Mid greyish brown silty clay. Moderate to loose compaction. Frequent charcoal and occasional small stone inclusions. Contained less burnt material than the lower fill C129.	Topsoil	C129	Area 6
131	Fill	C125		0.58	0.41	0.06	Basal fill of pit	Dark brown/black silt and charcoal. Well compacted. No in situ burning.	C132	C125	Area 6
132	Fill	C125		0.4	0.26	0.1	Upper fill of pit	Mid greyish brown silty clay. Well compacted. Moderate gravel and occasional charcoal inclusions.	Topsoil	C131	Area 6
133	Fill	C122		1.84	1.54	0.49	Upper fill of pit/well	Mid greyish orange-brown mottled with dark grey stony silty clay. Well compacted. Stones are small to gravel sized. Occasional charcoal, occasional larger stones, rare animal bone inclusions.	Topsoil	C134	Area 6
134	Fill	C122		1.84	1.54	0.57	Secondary fill of pit/well	Pale grey stony sandy clay. Well compacted. Occasoinal charcoal and animal bone inclusions.	C133	C135	Area 6
135	Fill	C122		1.84	1.54	0.1	Primary fill of pit/well	Dark reddish brown silty clay. Moderate to loose compaction. Occasional small stone and moderate sand inclusions.	C134	C122	Area 6
136	Fill	C123		0.77	0.5	0.095	Fill of pit	Dark greyish brown silty clay. Moderate to loose compaction. Frequent charcoal and occasional small stone inclusions. Some root disturbance.	Topsoil	C123	Area 6
137	Fill	C128		0.32	0.27	0.15	Fill of posthole/ small pit	Dark greyish brown silty clay. Moderate to loose compaction. Frequent charcoal and occasional small stone inclusions.	Topsoil	C128	Area 6
138	VOID										
139	VOID										

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
140	Fill	C126		1.35	0.7	0.21	Fill of pit	Mid brown silty clay. Moderate to loose compaction. Occasional small stone and gravel and occasional charcoal inclusions.	Topsoil	C126	Area 6
141	Fill	C120		3.45	0.43	0.06	Fill of plough furrow	Dark greyish brown silty clay. Moderate to loose compaction. Occasional small stones and occasional charcoal inclusions.	Topsoil	C120	Area 6
142 (17E0125 - C139)	Cut		C143	0.59	>0.57	0.13	Pit within enclosure C54	Subcircular shape in plan, basin shape in profile. Sharp b.o.s at top, steep concave sides and sharp b.o.s to flat base.	C143	Natural	Area 3
143 (17E0125 - C140)	Fill	C142		0.59	>0.57	0.13	Fill of pit	Mid brown silt and gravel. Loose compaction.	C144	C142	Area 3
144 (17E0125 - C141)	Cut		C145, C146	0.7	0.61	0.15	Pit within enclosure C54	Subcircular shape in plan, basin shape in profile. Sharp b.o.s at top, moderately steep straight sides and sharp b.o.s to flat base.	C145	C143	Area 3
145 (17E0125 - C142)	Fill	C144		0.7	0.61	0.15	Primary fill of pit	Greyish brown silt and gravel with animal bone inclusions. Loose compaction.	C146	C144	Area 3
146 (17E0125 - C143)	Fill	C144		0.2	0.18	0.03	Upper fill of pit	Dark greyish brown stony clayey silt with animal bone, charcoal and burnt bone inclusions. Moderate compaction.	Topsoil	C145	Area 3

Context	Type	Fill of	Filled by	L. (m)	W. (m)	D. (m)	Interpretation	Description	Context Above	Context Below	Area
147 (17E0125 - C151)	Cut		C148, C149	1.06	0.8	0.25	Pit to E of enclosure C54	Suboval shape in plan, uneven basin shape in profile. Long axis N-S. Sharp b.o.s at top. Straight moderately sloping sides to the E, convex sides to the W. Sharp b.o.s at base to W, gradual to E. Flat base.	C149	Natural	Area 3
148 (17E0125 - C152)	Fill	C147		1.06	0.8	0.16	Upper fill of pit	Greyish brown silty clay with frequent burnt bone and charcoal inclusions. Moderate compaction.	Topsoil	C149	Area 3
149 (17E0125 - C155)	Fill	C147		0.9	0.62	0.09	Basal fill of pit	Greyish brown gravelly silty clay. Moderate compaction.	C148	C147	Area 3
150	Cut		C151	1.4	0.75	0.2	Pit	Suboval shape in plan. Long axis N-S. Sharp b.o.s at top. Straight sides. Tapered base.	C151	Natural	Area 3
151	Fill	C150		1.4	0.75	0.2	Fill of pit	Mid yellowish brown silty clay. Moderate compaction.	Topsoil	C150	Area 3
152	Cut		C153	1.2	0.55	0.25	Pit	Short linear shape in plan. Long axis NW-SE.	C153	Natural	Area 3
153	Fill	C152		1.2	0.55	0.25	Fill of pit	Mid yellowish brown silty clay. Moderate compaction.	Topsoil	C152	Area 3
154	Cut		C155	1.1	0.6	0.15	Pit	Suboval shape in plan. Long axis N-S.			
155	Fill	C154		1.1	0.6	0.15	Fill of pit				

APPENDIX B Finds Register

Find No.	Site No.	Context No.	Item No.	Count	Simple name	Full name	Material	Description
21E0261:22:1	21E0261	22	1	1	Bead	Clay bead	Ceramic?	Fired clay bead
21E0261:22:2	21E0261	22	2	1	Clay pipe	Clay pipe	Ceramic	Clay pipe stem
21E0261:22:3	21E0261	22	3	1	Clay pipe	Clay pipe	Ceramic	Clay pipe stem
21E0261:22:4	21E0261	22	4	1	Pot	Post-med. pottery	Ceramic	Post-medieval pottery sherd
21E0261:22:5	21E0261	22	5	1	Pot	Post-med. pottery	Ceramic	Post-medieval pottery sherd
21E0261:22:6	21E0261	22	6	1	Pot	Post-med. pottery	Ceramic	Post-medieval pottery sherd
21E0261:34:1	21E0261	34	1	1	Core?	Chert core	Stone	Possible chert core
21E0261:36:1	21E0261	36	1	2	CBM	Red brick	CBM	Red brick fragments
21E0261:39:1	21E0261	39	1	1	Poss. quernstone	Quernstone fragment	Granite	Possible quernstone fragment
21E0261:107:1	21E0261	107	1	1	Pot	Post-med. pottery	Ceramic	Post-medieval pottery sherd
21E0261:107:2	21E0261	107	2	1	Pot	Post-med. pottery	Ceramic	Post-medieval pottery sherd
21E0261:107:3	21E0261	107	3	1	Pot	Post-med. pottery	Ceramic	Post-medieval pottery sherd
21E0261:107:4	21E0261	107	4	1	Pot	Post-med. pottery	Ceramic	Post-medieval pottery sherd
21E0261:129:1	21E0261	129	1	1	Pot	Prehistoric pottery	Ceramic	Late Bronze Age pottery sherd
21E0261:129:2	21E0261	129	2	1	Scraper	Flint scraper	Flint	Retouched scraper
21E0261:129:3	21E0261	129	3	1	Flake	Flint debitage	Flint	Possible debitage

APPENDIX C Sample Register

Sample No.	Context No.	Cut no.	Area	Description	Volume	Notes
1	10	9	5	Charcoal and burnt clay from furnace C9	2 bags	*Furnace
2	11	9	5	Charcoal from furnace C9	2 bags	*Furnace
3	10	9	5	Solid burnt clay fragments from furnace C9	1 bag	strucural
4	13	12	1	Charcoal and scorched deposit from pit C12	1 bag	charcoal
5	16	15	1	Charcoal from pit C15	1 bag	charcoal
6	29	17	6	Fill of recut C28 in base of fulacht trough C17	2 bags	*Fulacht
7	18	17	6	Lower fill of fulacht trough C17	2 bags	*Fulacht
8	34	33	2	Fill of pit C33	1 bag	charcoal, poss. chert core
9	42	41	2	Charcoal from pit C41	1 bag	charcoal
10	49	48	2	Fill of posthole C48 with charcoal and burnt bone	1 bag	*Burnt bone
11	40	38	1	Basal fill of kiln C38	2 bags	*Kiln
12	25	24	1	Fill of kiln C24	2 bags	*Kiln
13	44	43	2	Charcoal from pit/posthole C43	1 bag	charcoal
14	44	43	2	Bulk soil sample from pit/posthole C43	1 bag	charcoal
15	59	58	3	Bulk soil sample from slot trench C58	1 tub	*Structure
16	65	64	3	Fill of posthole C64	1 bag	bulk soil
17	75	76	3	Fill of pit/posthole C76	1 bag	bulk soil
18	55	54	3	Fill of enclosure trench C54 between slots 4 and 5	1 tub	*Enclosure
19	63		3	Fill of slot trench C62 within enclosure C54	1 tub	*Structure
20	85	81	4	Charcoal rich lower fill of pit C81	1 tub	charcoal
21	89	83	4	Charcoal rich lower fill of pit C83 - south side	1 tub	*Fire pit
22	89	83	4	Charcoal rich lower fill of pit C83 - north side	0.5 tub	*Fire pit
23	93	92	5	Burnt bone and charcoal from pit C92	0.5 tub	*Burnt bone
24	95	94	5	Charcoal fill of stakehole C94	0.5 bag	charcoal
25	109		5	Charcoal fill of pit C108	1 tub	charcoal
26	129	121	6	Basal fill of pit C121 with prehistoric ceramic, flint and charcoal	1 bag	*Bronze Age?
27	136	123	6	Charcoal rich fill of pit C123	1 bag	charcoal
28	135	122	6	Basal fill of large pit/well C122	1 bag	bulk soil
29	131	125	6	Charcoal basal fill of pit C125	1 bag	charcoal
30	139		6	CONTEXT VOIDED - modern	1 bag	*void sample
31	133	122	6	Upper fill of pit C122 with charcoal and animal bone	1 bag	charcoal
32	117	116	6	Fill of pit C116 with charcoal and burnt bone	2 bags	*Burnt bone
33	119	118	6	Fill of pit C118 with partially articulated animal bone	1 bag	post-med/ modern

APPENDIX D Bone Register

Sample No.	Context No.	Fill No.	Feature type	Area	Notes
1	3	4	Field drain	2	Animal bone fragments from linear C3
2	5	6	Field drain	2	Animal bone fragments from linear C5
3	31	32	Animal burial	2	Articulated but truncated sheep skeleton
4	41	42	Pit	2	Animal bone fragments from pit C41
5	45	46	Field drain	2	Animal bone from lower fill of ditch C45
6	45	47	Field drain	2	Burnt bone fragments from upper fill of ditch C45
7	48	49	Posthole	2	Burnt bone fragments from posthole C48
8	54	55	Enclosure	3	Burnt bone from enclosure C54
9	92	93	Pit	5	Burnt bone from pit C92

APPENDIX E Drawing Register

Drawing No.	Plan/Section	Description	Scale	Area	Sheet No.	Cut no.s	Fill no.s
1	Section	W-facing section of field drain C5, C6	01:10	Area 2	1	C5	C6
2	Section	W-facing section of field drain C3, C4	01:10	Area 2	1	C3	C4
3	Section	N-facing section of shallow pit C1, C2	01:10	Area 2	1	C1	C2
4	Section	N-facing section of probable furrow C7, C	01:10	Area 2	1	C7	C8
5	Section	E-facing section of furnace C9, C10, C11	01:10	Area 5	1	C9	C10, C11
6	Plan	Post-ex plan of furnace C9	01:10	Area 5	1	C9	
7	Section	S-facing section of pit C12, C13, C14	01:10	Area 1	1	C12	C13, C14
8	Plan	Post-ex plan of pit C12	01:10	Area 1	1	C12	
9	Section	W-facing section of pit C15, C16	01:10	Area 1	1	C15	C16
10	Plan	Post-ex plan of pit C15	01:20	Area 1	1	C15	
11	Section	W-facing section of fulacht trough C17	01:10	Area 6 (E)	2	C17	C18, C19
12	Plan	Post-ex plan of fulacht trough C17	01:20	Area 6 (E)	2	C17	
13	Section	SW-facing section of kiln flue C24, C25	01:10	Area 1	2	C24	C25
14	VOID	VOID			2		
15	Section	SW-facing section of pit C26, C27	01:10	Area 1	2	C26	C27
16	Section	W-facing section of posthole C33, C34	01:10	Area 2	2	C33	C34
17	Section	E-facing section of ditch C35, C36, C37	01:10	Area 2	2	C35	C36, C37
18	Plan	Post-ex plan of posthole C33	01:10	Area 2	2	C33	
19	Profile	E→W profile of pit with sheep skeleton C31	01:10	Area 2	2	C31	
20	Section	S-facing section of shallow pit C41, C42	01:10	Area 2	2	C41	C42
21	Plan	Post-ex plan of pit C41	01:10	Area 2	2	C41	
22	Section	E-facing section of posthole C43 and linec	01:10	Area 2	2	C43, C45	C44, C46, C47
23	Plan	Post-ex plan of kilns C24, C38 and pit C26	01:20	Area 1	3	C24, C38, C26	
24	Profile	N→S profile of kiln C38	01:20	Area 1	3	C38	
25	Profile	SE→NW profile of kiln C38	01:20	Area 1	3	C38	
26	Plan	Post-ex plan of pit C43 and mid-ex plan of linear C45	01:20	Area 2	3	C43, C45	
27	Profile	W→E profile of posthole C48	01:10	Area 2	3	C48	
28	Profile	NE→SW profile of posthole C48	01:10	Area 2	3	C48	
29	Plan	Post-ex plan of posthole C48	01:10	Area 2	3	C48	
30	Section	W-facing section of linear C45 and profile of posthole C43	01:10	Area 2	3	C43, C45	C46, C47
31	Section	N-facing section of ditch C50 and recut C	01:10	Area 3	3	C50, C52	C51, C53

Drawing No.	Plan/Section	Description	Scale	Area	Sheet No.	Cut no.s	Fill no.s
32	Section	S-facing section of enclosure C54, Slot 2	01:10	Area 3	3	C54	C55
33	Section	N-facing section of enclosure C54, Slot 2	01:10	Area 3	3	C54	C55
34	Section	N-facing section of enclosure C51, Slot 1	01:10	Area 3	3	C54	C55
35	Section	NE facing section of pit/posthole C56, C57	01:10	Area 3	4	C56	C57
36	Plan	Slot trench C58	01:10	Area 3	4	C58	
37	Section	S-facing section of slot trench C58	01:10	Area 3	4	C58	C59
38	Section	SE-facing section of enclosure C54, Slot 4	01:10	Area 3	4	C54	C55
39	Section	SE-facing section of enclosure C54, Slot 5	01:10	Area 3	4	C54	C55
40	Section	E-facing section of enclosure C54, Slot 6	01:10	Area 3	4	C54	C55
41	Section	E-facing section of enclosure C54, Slot 7	01:10	Area 3	4	C54	C55
42	Section	W-facing section of enclosure C54, Slot 7	01:10	Area 3	4	C54	C55
43	Section	E-facing section of posthole C64, C65 in sl	01:10	Area 3	4	C62, C64	C61, C65
44	Plan	Post-ex of posthole C64	01:10	Area 3	4	C64	
45	Section	NW-facing section of posthole C66, C67, C	01:10	Area 3	4	C66	C67, C68
46	Section	SE-facing section of posthole C71	01:10	Area 3	4	C71	C72
47	Section	SE-facing section of posthole C73	01:10	Area 3	4	C73	C74
48	Section	E-facing section of enclosure C54, C55	01:10	Area 3	4	C54	C55
49	Section	N-facing section of posthole C75	01:10	Area 3	4	C75	C76
50	Section	W-facing section of posthole C77	01:10	Area 3	4	C77	C78
51	Section	E-facing section of posthole C79	01:10	Area 3	4	C79	C80
52	Section	E-facing section of pit C81	01:10	Area 4	4	C81	C82, C85
53	Section	E-facing section of pit C86	01:10	Area 4	4	C86	C87
54	Section	W-facing section of pit C83	01:10	Area 4	4	C83	C84, C88, C89, C90, C91
55	Plan	Post-ex plan of pit C81	01:10	Area 4	4	C81	
56	Plan	Post-ex plan of pit C83	01:10	Area 4	5	C83	
57	Plan	Post-ex plan of pit C86	01:10	Area 4	5	C86	
58	Section	NW-facing section of C89 and C91 in pit C	01:50	Area 4	4	C83	C89, C91
59	Plan	Post-ex plan of Area 3	01:50	Area 3	5		
60	Section	E-facing section of pit C92, C93	01:10	Area 5	5	C92	C93
61	Profile	E→W profile of stakehole C94 and posthol	01:10	Area 5	6	C94, C102	
62	Section	S-facing section of pit/posthole C96, C97	01:10	Area 5	6	C96	C97
63	Section	NE-facing section of stakeholes C98 and C	01:10	Area 5	6	C98, C100	C99, C101
64	Plan	Post-ex plan of C94, C96, C98, C100 and C	01:10	Area 5	6	C94, C96, C98, C100, C102	
65	Profile	E→W profile of stake/post-hole C98	01:10	Area 5	6	C98	

Drawing No.	Plan/Section	Description	Scale	Area	Sheet No.	Cut no.s	Fill no.s
66	Section	W-facing section of linears C104 and C106	01:20	Area 5	6	C104, C106	C105, C107
67	Section	SE-facing section of pit C108	01:10	Area 5	6	C108	C109, C110
68	Section	NW-facing section of posthole C111	01:10	Area 5	6	C111	C112, C115
69	Profile	NW→SE profile of pit C108 and postholes C	01:10	Area 5	6	C108, C111, C113	
70	Plan	Post-ex pit C108 and postholes C111 and C	01:10	Area 5	6	C108, C111, C113	
71	Section	SW-facing section of pit C116	01:10	Area 6 (W)	7	C116	C117
72	Section	ESE-facing section of pit C118	01:10	Area 6 (W)	7	C118	C119
73	Section	NW-facing section of pit/posthole C121	01:10	Area 6 (W)	7	C121	C129
74	Section	SW-facing section of pit C125	01:10	Area 6 (W)	7	C125	C131
75	Section	NNE-facing section of pit C122	01:20	Area 6 (W)	7	C122	C133, C134, C135
76	Section	S-facing section of pit C123	01:10	Area 6 (W)	7	C123	C136
77	Section	SW-facing section of pit C126	01:10	Area 6 (W)	7	C126	C140
78	Plan	Post-ex plan of pit C118	01:10	Area 6 (W)	7	C118	
79	Plan	Post-ex plan of pit/posthole C121	01:10	Area 6 (W)	7	C121	
80	Plan	Post-ex plan of pit C125	01:10	Area 6 (W)	7	C125	
81	Plan	Post-ex plan of pit C122	01:20	Area 6 (W)	7	C122	
82	Plan	Post-ex plan of pit C123	01:10	Area 6 (W)	7	C123	
83	Plan	Post-ex plan of pit/posthole C128	01:10	Area 6 (W)	7	C128	
84	Plan	Post-ex plan of pit C116	01:10	Area 6 (W)	7	C116	

APPENDIX F Metallurgical Waste Register

Sample No.	Fill No.	Cut No.	Feature type	Description of slag	Bags	Area	Notes
1	C10	C9	Metalworking furnace C9	Slag	1	5	I bag
2	C11	C9	Metalworking furnace C1(	Slag	1	5	I bag
3	C55	C54	Enclosure trench C54 betv	1 small piece of slag	1	3	1 bag

APPENDIX G Photo Register

The photographic record from the excavation has been arranged into folders:

Area 1	49 images in 4 folders
Area 2	87 images in 11 folders
Area 3	110 images in 13 folders
Area 4	30 images in 3 folders
Area 5	72 images in 8 folders
Area 6	67 images in 12 folders
Monitoring	29 images in 1 folder

Photos were assigned to a folder based on the main feature within that folder.

APPENDIX H Archive Register

Site Name: **Rathbride Road, Kildare - Phase 2**

Archaeological Licence No. **21E0261**

Site director: **Steven McGlade**

Date: **February 2022**

Field Records	**Items (quantity)**	**Comments**
Site drawings (plans)	24	2 sheets
Site sections, profiles, elevations	59	2 sheets
Other plans, sketches, etc.		
Timber drawings		
Stone structural drawings		
Site diary/ notebooks	1	
Site registers (folders)	6	digital
Survey/levels data (origin information)	Digital	Site survey
Context sheets (paper)	132	
Context sheets (digital)	150	
Wood sheets		
Skeleton sheets		
Worked stone sheets		
Digital photographs	444	
Photographs (print)		
Photographs (slide)		
Finds and environmental archive		
Flint/chert	3	
Stone artefacts	1	poss. quern
Pottery - prehistoric	1	
Medieval		
Post-medieval	7	
Ceramic building materials (specify types eg daub, tile)	2	red brick
Metal artefacts (specify types - bronze, iron)		
Glass		
Other find types or special finds	2	clay pipe stems
	1	bead - poss. Ceramic
Human bone (specify type eg cremated, skeleton,		
Animal bone	9	samples (inc. 4x burnt bone)
Metallurgical waste	3	samples
Environmental bulk soil (specify number of samples)	32	
Environmental monolith (specify number of samples and		
Timbers/ stakes		
Security of archive	Good	Digital and paper archive

Comhairle Contae Chill Dara
Kildare County Council

Date: 05/02/2021
Pl. Ref: 20/159

Kelland Homes Limited,
C/o Delphi Architects + Planners,
13 Seapoint Building,
44/45 Clontarf Road,
Clontarf,
Dublin, 3.

Planning Register Number: 20/20159
Application Receipt Date: 20/02/2020

The construction of 74 No. dwellings. The proposed development is comprised of 1 No. 2 storey 4 bed detached house, 22 No. 2 storey 4 bed semi-detached houses, 45 No. 2 storey 3 bed semi-detached and terraced houses and 6 No. 2 storey 2 bed terraced houses. Access to the proposed development will be from Rathbride Road via existing entrance previously permitted under Reg. Ref. 16/1227. The proposed development also includes all associated site development works, parking, open spaces, landscaping, drainage, infrastructural works etc. all on a site measuring circa 3.11 hectares, AT Rathbride Road, Kildare Town, Co. Kildare. **IN ACCORDANCE WITH THE PLANS SUBMITTED WITH THE APPLICATION**.

In pursuance of the powers conferred upon them by the Planning & Development Acts 2000 (as amended), Kildare County Council have by Order dated 15/12/2020 GRANTED PERMISSION to the above named, for the above development, subject to 41 conditions set out in the attached schedule.

Date: 05/02/2021 Signed: _____
Senior Executive Officer, Planning
Kildare County Council.

NOTE: The permission herein granted shall, on the expiration of the period of 5 years beginning on the date of the granting of permission, cease to have effect as regards:

(1) In case the development to which the permission relates is not commenced during the period, the entire development, and

(2) In case such development is so commenced, so much thereof as is not completed within that period.

Planning Permission is sought for the construction of 74 No. dwellings. The proposed development is comprised of 1 No. 2 storey 4 bed detached house, 22 No. 2 storey 4 bed semi-detached houses, 45 No. 2 storey 3 bed semi-detached and terraced houses and 6 No. 2 storey 2 bed terraced houses. Access to the proposed development will be from Rathbride Road via existing entrance previously permitted under Reg. Ref. 16/1227. The proposed development also includes all associated site development works, parking, open spaces, landscaping, drainage, infrastructural works etc. all on a site measuring circa 3.11 hectares at Rathbride Road, Kildare Town, Co. Kildare - Kelland Homes Limited – 20/159

Schedule 1 - Considerations and Reasons on which this Decision is based as required by Article 31 of the Planning and Development Regulations 2001 (as amended)

Having regard to the nature and design of the development, the residential zoning of the site in the Kildare Town Local Area Plan 2012-2018, the policies contained in the Kildare County Development Plan 2017-2023 and the character of adjoining development, it is considered that, subject to compliance with the conditions attached, the development for which permission is sought would not seriously injure the amenities of the area or of property in the vicinity, and would be in accordance with the proper planning and sustainable development of the area.

Schedule 2 – Conditions

1. The development shall be carried out in accordance with the documentation received by the Planning Authority on 20/02/2020, the further information received on 17/09/2020 and the clarification of further information received on 20/11/2020 except where altered or amended by conditions in this permission.

Reason: To ensure that the development shall be in accordance with the permission and that effective control be maintained.

2. The total number of residential units granted by this permission is 74, as per the public notices.

Reason: In the interest of clarity.

3. The external finishes of the proposed development shall be consistent with details received by the Planning Authority on 20/02/2020, and the further information received by the Planning Authority on 17/09/2020, unless otherwise agreed in writing with the Planning Authority prior to commencement of any development. Prior to the commencement of development, a colour brochure sample of the proposed external brick type shall be submitted to the Planning Authority for its written agreement.

Note - Roof colours shall be blue/black or slate grey colour, using flat tiles or slates. The colour of ridge tiles/cappings shall be the same as the colour of the roof.

Reason: In order to assimilate the development on this site into the surrounding area, in the interests of visual amenity and the proper planning and sustainable development of the area.

4. (a) The site shall be landscaped and laid out in accordance with the Landscape Plan received by the Planning Authority on 20/02/2020, the additional Landscape Report and accompanying drawings received as further information on 17/09/2020 and the clarification of further information received on 20/11/2020. All new planting on the site shall be suitable indigenous species as outlined in Section 17.2.6 of the Kildare County Development Plan 2017–2023 and shall be completed prior to the first occupation of the development.

(b) All front and rear private garden spaces shall be soiled and seeded prior to the occupation of any dwelling unit within each phase.
(c) The public open spaces shall be developed for and devoted to public use. They shall be kept free of any development and shall not be enclosed by any means, except where otherwise agreed. When the development is being taken in charge, the open spaces shall be vested to the Planning Authority, as public open spaces.

Reason: To ensure a satisfactory standard of development.

5. Prior to the commencement of development, the Developer shall submit, for the written agreement of the Planning Authority, a revised site layout plan omitting the filtered permeability between the proposed scheme and Dunmurray Rise and altering the housing layout as required.

Reason: In the interest of the proper planning and sustainable development of the area.

6. Prior to the commencement of development, the Developer shall submit proposals for naming (in Irish and in English together with an explanation for the submitted names), signposting or other identifying structures and numbering of the development. The proposed name(s) shall be based on local, historical or topographical features, or other acceptable alternatives. Names capable of giving rise to confusion or with associations not local to the area will not be permitted. All names shall be subject to the prior written consent of the Planning Authority. The location and design of any name plaques or other signs shall be agreed in writing with the Planning Authority prior to the commencement of site development works.

Reason: In the interest of the proper planning and sustainable development of the area.

7. Prior to the lodgement of a Commencement Notice within the meaning of Part II of the Building Control Regulations, 1997 the Applicant and any other person with an interest in the land to which this Permission relates shall enter into an Agreement with the Planning Authority providing for the matters referred to in Section 96(3) (a) or (b) of

the Planning & Developments Acts as amended. This Agreement shall provide for the reservation of 10% (or such lesser percentage, if any, as may be provided for in the Planning Authority's Housing Strategy/Development Plan at the time of such Agreement) of the lands to which this Permission relates for the provision of housing of the type referred to in Section 94(4)(a) of the Planning & Development Acts as amended, unless an alternative arrangement as permitted by Section 96(3)(b) of the said Acts is agreed with the Planning Authority. Where any such alternative arrangement provides for the transfer of dwelling units to the Authority such units shall conform with the Department of the Environment, Community & Local Governments minimum design standards as set out in "Quality Housing for Sustainable Communities" and "Sustainable Urban Housing - Design Standards for New Apartment Guidelines for Planning Authorities" and any subsequent amendments applicable at the date of the Grant of Planning Permission and must have registered title at the time of transfer to Kildare County Council.

Reason: To comply with the requirements of Part V of the Planning & Development Acts as amended and the policies and objectives of the Kildare County Housing Strategy as contained within the County Development Plan.

8. The Developer shall provide electrical charge points to the front driveways of all dwellings with curtilage parking, linked to the individual domestic electricity meters. Electrical charge points shall also be provided to the parking spaces for house numbers 88 to 91 inclusive in a manner which avoids electric cables extending across footpaths. Where parking is separated by a public footpath, the Developer shall provide a duct in the footpath to ensure an electrical cable can be taken to the vehicle from the individual domestic electricity meters without creating a trip hazard.

Reason: To promote the use of renewable energy.

9. Upon completion of all road and footpath works associated with the development, the Developer shall complete a Stage 3 Road Safety Assessment/Audit, to be carried out by an independent approved and certified auditor. The recommendations contained in the Road Safety Assessment/Audit and agreed actions shall be signed off by the audit team and the works shall be carried out by the Developer prior to occupancy of the new houses.

Reason: In the interest of vehicular, pedestrian, cyclist and traffic safety.

10. Prior to the commencement of the development, the Developer shall submit, for the written agreement of the Planning Authority, a revised detailed design for the missing length of footway, on Rathbride Road (R415) approximately 100m south of the vehicular junction with the R415). The following information will be required:

- **(a)** Evidence of agreement with any third-party stakeholders to construct the footpath;
- **(b)** Design and construction details for the concrete footpath;
- **(c)** A Road Opening Licence and any other necessary documentation such as a wastewater connection permit from Irish Water.

(d) A completion date for the agreed pedestrian safety measure, which shall be fully implemented by the Developer, prior to the occupancy of the new houses.

All costs associated with these works shall be borne solely by the Developer.
Developer to arrange transfer of land comprising same footpath to Kildare County Council.

Reason: In the interest of pedestrian safety.

11. The Developer shall ensure that lines of sight throughout the development are in accordance with the requirements of the Design Manual for Urban Roads and Streets.

Reason: In the interest of traffic safety.

12. All footpaths shall be dished at junctions and road crossings to facilitate the disabled.

Reason: In the interest of traffic and pedestrian safety.

13. Roads, footpaths and turning areas shall be designed and constructed in accordance with the Recommendations for Site Development Works for Housing Areas (R.S.D.W.H.A.) by The Department of the Environment and Local Government.

Reason: In the interest of traffic safety.

14. Prior to commencement of development, the Developer shall submit details, and obtain the written agreement from the Planning Authority and the Parks Department, for the root management system to be utilised where trees are planted adjacent to roads and/or footpaths.

Reason: To prevent heave of surfaces.

15. The Developer shall ensure that CBR tests are taken in accordance with section 2.16 of R.S.D.W.H.A. by The Department of the Environment and Local Government and as required to determine the sub-grade strength under the proposed distributor road. The results together with a suitable pavement design in accordance with Transport Infrastructure Ireland DN-PAV-03021 are required by the Planning Authority.

Reason: In the interest of road safety.
16. The Developer shall ensure that the surfacing course of new road, within the development, is Stone Mastic Asphalt, SMA 14 surf PMB 65/105-60 des 45mm thick, in compliance with clause 942 of NRA/TII specification, details to be agreed with the Planning Authority beforehand.

Reason: This is to ensure that the surfacing course provides adequate skid resistance.

17. The Developer shall erect appropriate warning signage during the construction period in the vicinity of the proposed site entrance for the benefit of all those passing the entrance and those entering and exiting from the site.

Reason: In the interest of traffic and pedestrian safety.

18. Prior to the commencement of the development, the Developer shall submit, for the written agreement of the Planning Authority, a construction management plan to include, among other things:
(a) The exact haul routes for all commercial vehicles;
(b) The number and type of traffic movements expected during the construction phase;
(c) Hours of operation for all stages of the construction phase;
(d) A traffic management plan;
(e) Details for the provision of wheel washing facilities;
(f) Details for the provision of construction lighting.

Reason: In the interest of pedestrian and traffic safety.

19. Surface water shall be collected, and road gullies shall be provided in accordance with Section 3.19 of the Department of Environment and Local Government "Recommendations for Site Development Works for Housing Areas" (R.S.D.W.H.A.). All gullies shall be fitted with suitable locking type covers or gratings.

Reason: In the interest of proper drainage facilities and traffic safety.

20. Prior to commencement of the development, the Developer shall secure the written agreement of the Planning Authority and the Public Lighting Engineer for the lighting of the walkways across the open spaces with the walkways.

Reason: In the interest of traffic exiting the new development and pedestrian safety.

21. (a) The Developer shall ensure that the internal public lighting is carried out in accordance with the further information received by the Planning Authority on 17/09/20, unless otherwise agreed in writing with the Planning Authority.

(b) The Developer shall ensure that the proposed lighting system shall comply with the requirements set out in Kildare County Council's Online Street Lighting Technical Specification.

(c) The Developer shall ensure that the approved lighting system within the development is fully implemented prior to the first occupation of the development, or if the Planning Permission relates to a phased development, prior to the first occupation of each phase.

Reason: In the interests of a properly planned and serviced development, and in the interests of public safety.

22. Where the Developer proposes to connect to a public water/wastewater network operated by Irish Water, the Applicant must sign a connection agreement with Irish Water prior to the commencement of the development and adhere to the standards and conditions set out in that agreement. In the interest of Public Health and Environmental Sustainability, Irish Water Infrastructure capacity requirements and proposed connections to the Water and Waste Water Infrastructure will be subject to the constraints of the Irish Water Capital Investment Programme.

Reason: To ensure proper servicing of the development.

23. A statement of Design Acceptance shall be obtained from Irish Water for the wastewater and water supply design and layout prior to the commencement of the development. All development shall be carried out in accordance with Irish Water standards, codes and practices.

Reason: In the interests of public health and to ensure proper development.

24. Prior to commencement of the development the Developer shall submit, to the Planning Authority, a copy of an agreement between the Developer and Irish Water in relation to the design and upgrade works to the Rathbride Abbey WWPS to which the proposed development will discharge, and which the Applicant shall carry out, as previously agreed to carry out under planning ref 16/1227. The Developer shall consult with Irish Water and the Water Services Section prior to submitting this information. Confirmation from Irish Water of the satisfactory completion and commissioning of the Rathbride Abbey WWPS upgrading works shall be submitted.

Reason: To ensure proper servicing of the development.

25. The final drainage design and construction for the proposed development shall achieve compliance to the maximum extent reasonably practicable with the Greater Dublin Strategic Drainage Study (GDSDS) particularly Regional Drainage Policy Volume 2 New Developments Chapter 4 Sustainable Drainage Systems, Chapter 6 Stormwater Drainage Design and Appendix E design of SuDS facilities and Volume 3 Environmental Management Policy Chapters 5 & 6 and Appendices D & E, GDSDS Regional Code of Practice and all other applicable industry standards and codes of practice including but not limited to CIRIA SuDS Manual, BRE Digest 365, BS 8301:1985, Recommendations for Site Development Works in Housing Areas and relevant Building Regulations with a 20% uplift applied to relevant design calculations for climate change.

Reason: To ensure proper servicing of the development and to prevent flooding and pollution.

26. Prior to commencement of the development the Applicant shall submit for the written agreement of the Planning Authority the following information;

(a) Results of a groundwater monitoring programme to be implemented immediately at various locations around the proposed central soakaway for a minimum of 3 months, including at least one winter season to give more accurate of the prevailing groundwater regime so as to ensure the infiltration capacity will not be adversely compromised.

(b) Where the results of the groundwater monitoring programme preclude the use of the soakaway or the bioretention area, a revised drainage strategy and design shall also be submitted.

Reason: To ensure proper servicing of the development and to prevent flooding and pollution.

27. With regard to the final drainage systems design and layout the following issues shall be addressed including but not limited to:

(a) Attenuation storage design calculations and provision including at the bioretention area where relevant shall make appropriate allowance for interception, treatment and long-term storage in accordance with GDSDS Regional Drainage Policy Volume 2 New Developments Chapter 6 Stormwater Drainage Design, Appendix E Design of Stormwater Storage and other applicable industry standards and codes of practice.

The design shall make clear how the individual storage elements will be provided eg via infiltration or permeable paving and quantify the amount of storage these media will provide and evaluate the impact of any high groundwater levels on the discharge arrangements for the attenuation storage.
Attenuation and the other required storage elements should be calculated using the appropriate drainage contributing areas connected to the drainage systems, making appropriate allowance for head-storage relationship, taking into account that these values are not strictly additive and cumulative and in accordance with the worked example in GDSDS Volume 2 Appendix E.
Appropriate hydraulic design parameters including factor of safety shall be applied so as not to give rise to oversized attenuation storage provision and the proposed bioretention area shall also be considered.

(b) The drainage pipe network design calculations and provision shall be in accordance with GDSDS Regional Drainage Policy Volume 2 New Developments Chapter 6 Stormwater Drainage Design and other applicable industry standards and codes of practice using the appropriate drainage contributing areas connected to the drainage

systems and based on an appropriate design return period event eg 2 or 5 years and storm event duration.
Self-cleansing velocities should be achieved and adequate vertical separation shall be provided between the drainage pipes and other services particularly the foul sewers which are also located in the internal roadways.

(c) The second site investigation exercise carried out in May 2020 revealed suitable infiltration rates at 5 out of 8 infiltration test locations at 600mm depths. Therefore any proposed permeable paving at these locations could infiltrate to ground and new shallow SuDS infiltration systems such as linear horizontal soakaways or shallow swales-infiltration trenches could be facilitated at these locations in the final drainage strategy and design.
At borehole BH02 to the east of the subject site approximately at the proposed bioretention area a layer of sand was discovered at 2.5m-4.2m below ground level which could be exploited to facilitate infiltration.

(d) The proposed bioretention area shall be designed and constructed in accordance with Chapter 18 CIRIA SuDS Manual latest edition.
Supplementary infiltration tests may be warranted at the bioretention area location to confirm the design infiltration rate and an appropriate design factor of safety shall be applied.
Additional SuDS including bioretention tree pits shall be considered and the SuDS are subject to a favourable groundwater regime as confirmed by the monitoring programme.
Vulnerable underlying groundwater bodies may need to be protected.
Surface storage SuDS including the proposed bioretention area should be subject to a health & safety risk assessment and Transportation, Parks and Development Control departments shall be consulted on future maintenance of SuDS including proposed soakaway and bioretention area where the proposed development will be put forward for taking in charge.

(e) Private rear gardens should be drained appropriately to prevent excessive overland flows, surface water ponding and build-up of hydrostatic water pressures behind underground boundary walls.
Particular attention shall be given to prevention of compaction of ground in garden areas by construction traffic.

Reason: To ensure proper servicing of the development and to prevent flooding and pollution.

28 (a) All foul sewage and soiled water shall discharge to the foul sewer system.

(b) Only clean uncontaminated surface water shall discharge to the surface water drainage system, all surface water from carpark areas shall pass through adequately sized and sited petrol/oil interceptor(s) before being discharged to the surface water system.

Reason: In the interest of public health, to avoid pollution, and to ensure proper development.

29. (a) Photographic records of drainage systems construction shall be kept by the Applicant. The maintenance regime for the proposed drainage systems including pipes, SuDS and flow control device(s) etc. shall be carried out by competent persons and be sufficiently robust and responsive to react in a timely fashion to all emergencies and issues that may arise outside of normal working hours.

(b) The Applicant shall keep full records akin to the statutory 'Safety File' including paper, digital and photographic of all drainage systems, their operation, implementation and maintenance and repair and these records and construction photographic records shall be handed over to new owners in suitable paper and digital formats should the proposed development be sold or transferred to another party.

Reason: To prevent interference with existing land or road drainage, to ensure proper servicing of the development and to avoid pollution.

30. The flood risk mitigation plan (FRMP) for the proposed development shall be completed prior to commencement of the development and this should be in accordance with the Planning System Flood Risk Management Guidelines (PSFRMG) and the flood risk management policies and objectives and Strategic Flood Risk Assessment in the relevant development plans eg the Kildare Town Local Area Plan including but not limited to the following:

(a) make appropriate allowance for the impact of future climate change on ALL flood risks;

(b) ensuring flood risk on the subject site is mitigated and no new or increased flood risk is posed to adjacent properties including the adjacent properties and adjacent roads as a result of the proposed development;

(c) fully addressing including mitigating fluvial, pluvial, groundwater and residual flood risks including but not limited to:

(i) Any pluvial or groundwater flood zones identified on OPW Preliminary Flood Risk Assessment (PFRA) flood mapping in or near the subject site.

(ii) Pre-existing and post-development surface water overland flow routes into, through and out of the subject site with particular attention given to areas where the site ground levels will be raised and where existing permeable boundary treatments will be replaced with impermeable boundary treatments thereby impounding or diverting existing flow routes onto adjacent properties, dwellings or roads particularly to the north of the subject site.

(iii) The proposed surface water drainage network shall be modelled for the 30 and 100 year storm events and achieve compliance with GDSDS Volume 2 Chapter 6 Level of Service for Site Flooding drainage design criteria and other applicable industry standards and codes of practice.

The necessary network modelling shall be sufficiently detailed and in accordance with an appropriate and established methodology which assesses the required return period events and range of storm durations including the critical storm duration event which

results in maximum storage and pipe network water levels (which appeared to be the 100 year 10 minute storm event *not* the identified 100 year 30 minute event).
The submitted hydraulic modelling report identified site flooding for the 100 year 10 minute event therefore network modelling for the 30 year event over a range of durations shall be included in the final design network modelling report and compliance with GDSDS Level of Service (Site Flooding) sub-criteria shall be achieved.

(iv) NB the detailed design stormwater hydraulic modelling, report and analysis model plan (dwg no C14) should correspond to the surface water drainage layout plan (dwg no C02 rev 1) and architects site layout plan (dwg no SW02 rev A) in terms of number of houses, open space and roads layouts.

(v) Finished floor levels shall be at a minimum of 500mm above relevant 100 year event top water levels in the soakaway and the bioretention area and should be at least 500mm above 100 year pluvial flood levels in the drainage pipe network (GDSDS LoS sub-criteria 3.3) and no flooding of adjacent urban areas shall occur with overland flooding managed within the development (sub-criteria 3.4).

(vi) Residual flood risk ie drainage failure and design exceedance shall be considered in the context of the achievable freeboard between the drainage element eg gulley or manhole, adjacent lowest house finished floor levels and the operative drainage maintenance regime.

(vii) Consider if compensatory flood storage for any pluvial or groundwater flooding identified on Office of Public Works PFRA flood mapping will be required on-site.

(viii) Assess emergency vehicle access and egress into, out of and around the proposed development during extreme flood events.

(ix) Groundwater flood risk assessment prior to finalising the flood risk mitigation plan shall be informed by the results and analysis of the groundwater monitoring programme.

Reason: To ensure proper servicing of the development and to prevent flooding and pollution.

31. The final adopted flood risk mitigation plan shall be implemented and maintained by the Applicant until such time as the proposed development is taken in charge and full records akin to the statutory 'Safety File' including paper, digital and photographic of the mitigation measures, their operation, implementation and maintenance and repair shall be kept and recorded by the Applicant on a regular basis and these records shall be handed over to new owners in suitable paper and digital formats should the proposed development be sold or transferred to another party.

Reason: To ensure proper servicing of the development and to prevent flooding and pollution.

32. All overground oil, chemical storage tank(s) shall be adequately bunded to protect against spillage. Bunding shall be impermeable and capable of retaining a volume equal to 1.1 times the capacity of the largest tank. Filling and off-take points shall be located within the bunded area(s).

Reason: In the interest of public health and the use of best practice guidelines in order to avoid pollution.

33. Site development and building works shall be carried only out between the hours of 07.00 to 18.00 Mondays to Fridays inclusive, between 08.00 to 13.00 on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written agreement has been received from the Planning Authority.

Reason: In order to safeguard the residential amenities of property in the vicinity.

34. Noise Control

The following noise limits shall apply to construction activities in accordance with the National Roads Authority's "Guidelines for Treatment of Noise and Vibration in National Roads Schemes":

70 dB(A) ($L_{Aeq\ (1\text{-}hour)}$) between the hours of 08:00 and 18:00 Monday to Friday and between the hours of 08:00 and 13:00 on Saturdays when measured at any noise sensitive location in the vicinity of the site. Sound levels shall not exceed 45dB(A) ($L_{Aeq\ (1\text{-}hour)}$) at any other time, except in exceptional circumstances where prior written approval has been received from the Planning Authority.

Reason: In the interest of public health and the use of best practice guidelines in order to avoid pollution.

35. Applicant shall use "Best Practicable Means" to prevent/minimise noise and dust emissions during the construction phase of the development, through the provision and proper maintenance, use and operation of all machinery, all to the satisfaction of the Planning Authority.

Reason: In the interest of public health, and the use of best practice guidelines in order to avoid nuisance.

36. Prior to the commencement of development, the Developer shall submit a formal Project Waste Management Plan for Construction and Demolition to the Local Authority for agreement prior to Commencement Notice stage. This plan shall, inter alia, include the information recommended in sections 3.2, 3.3 and 3.4 of the document titled "Best practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects" published by the Department of the Environment, Heritage and Local Government (July 2006)".

The plan shall also contain at a minimum:
(i) The waste types, including their List of Waste (LoW) Classification Codes and corresponding descriptions.
(ii) Volumes of each waste type expected to arise during construction and demolition.
(iii) How those waste types are intended to be stored prior to their collection and

(iv) The name of the authorised waste contractors intended to be used for the collection of each waste type, their waste collection permit numbers and the names and permit numbers of authorised waste sites intended to be used in the conjunction with the development.

Reason: In the interest of best practice guidelines for the management and reduction of construction and demolition waste in order to avoid pollution.

37. Prior to the commencement of development the red zones identified in the Archaeological Impact Assessment shall be fully excavated so any archaeological remains present may be preserved by record.

All topsoil stripping/general ground surface reductions down to the level required by the development should be monitored on a full time basis by a suitability qualified and experienced archaeologist. In the event of archaeological material being uncovered during the course of such monitoring, the archaeologist shall have works ceased in the vicinity of such material pending receipt of advice from the National Monuments section of the Department of Culture, Heritage and the Gaeltacht, with regard to additional mitigation measures that may be required. The requirements of the national Museum of Ireland shall be implemented in relation to any artefacts/archaeological material uncovered during these works. The Developer shall be prepared to be advised by the Department with regard to any necessary mitigating action e.g. redesign to allow for preservation in situ and/or excavation. The Applicant shall facilitate the archaeologist in recording any material found. The Planning Authority and the Department of Culture, Heritage and the Gaeltacht shall be furnished with a report describing the results of monitoring.

All human remains shall be collected and retained in the event of in situ remains/burials being uncovered during the course of such monitoring, the archaeologist shall have works ceased in the vicinity of such material pending receipt of advice from the National Monuments section of the Department of Culture, Heritage and Gaeltacht and the National Museum.

Reason: In the interest of the preservation of cultural and archaeological heritage.

38. Following completion of all monitoring and other possible archaeological investigation the archaeologist shall prepare a report for submission to the Planning Authority and the Department of the Culture, Heritage and Gaeltacht.

Reason: In the interest of the preservation of cultural and archaeological heritage.

39. The recommendations of the Bat Survey received by the Planning Authority on 17/09/2020, shall be implemented in full.

Reason: In the interest of the preservation of protected species and biodiversity.

40. No development shall be commenced until security has been given for the provision of and satisfactory completion of open space and of services and in accordance with the conditions herein contained and including maintenance until taken in charge by the Council of roads footpaths sewers watermains public lighting and similar type public facilities. 7 Council for application at its absolute discretion if the foregoing are not duly provided as aforesaid and to the Council's satisfaction. Where the proposed development is carried out on staged or phased basis the security required will be proportionate to each part of the development which is carried out in the foregoing manner.

The security shall be given by: **(a)** lodgement with the Council of an approved Insurance Company Bond in the amount of **€296,000** or **(b)** lodgement with the Council of a sum of **€296,000** provided always and if the development has not commenced within one calendar year from the date of the grant of this Permission or is carried out on a phased or staged basis the Council may at its discretion require an increase in the amount of the foregoing Bond or lodgement corresponding with the increase or estimated increase in the cost of the provision and completion of the services above described and in the manner provided for and which may have occurred since the aforesaid date. The Bond shall be index linked.

Reason: To ensure that a ready sanction may be available to the Council towards the provision of services and to prevent disamenity in the development.

41. The Applicant/Developer to pay to Kildare County Council the sum of **€440,900.00** being the appropriate contribution to be applied to this development in accordance with the Development Contribution Scheme adopted by Kildare County Council on 5th November 2015 in accordance with Section 48 of the Planning and Development Act 2000 as amended. Payments of contributions are strictly in accordance with Section 13 of Development Contribution Scheme adopted by Kildare County Council on 5th November 2015.

Note: Please note water and wastewater development contribution charges now form part of the water connection agreement, if applicable, with Irish Water.

Reason: It is considered reasonable that the developer should make a contribution in respect of public infrastructure and facilities benefiting development in the area of the Planning Authority.

ADVICE NOTE TO APPLICANTS All applicants are advised to make themselves aware of the requirements of the Building Control (Amendment) Regulations (S.I. No 9) 2014 which comes into effect on 1/3/2014 and the Construction Products Regulations (CPR) (Regulation (EU) no. 305/2011) which came into effect on 1/7/2013. Information leaflets can be viewed or downloaded on the council's website http://kildare.ie/CountyCouncil/Planning/BuildingControlDepartment/ or the Department of the Environment Community and Local Government website http://www.environ.ie/en/