



**LUAS B1 Sandyford to Cherrywood
Extension**

Archaeological Test Excavation

Brenanstown

06E214

Site 3A and 3B

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*Cultural Resource Development Services Ltd.
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Client Railway Procurement Agency (R.P.A.)

Project LUAS B1, Sandyford to Cherrywood Extension

Site Site 3A and 3B
Townlands Brenanstown
Parish Tully
County South County Dublin.

Nat. Grid Ref. Site 3A NGR 322885E, 223968N
Site 3B NGR 322835E, 223932N

Project Duration 1 Week
Excavation Start Date 01/06/2006
Report Date 10/08/2006

Report signed off by,

Donal Fallon MA
Project Manager CRDS Ltd.

Executive Summary

At the request of the Railway Procurement Agency, CRDS Ltd. have completed pre-development archaeological testing within a section of the proposed development corridor for the proposed LUAS B1 line, in Brenanstown townland.

The Railway Procurement Agency ('RPA') has submitted an application for a Railway order for submission to the Minister for Transport under Section 37 of the Transport (Railway Infrastructure) Act 2001. The Railway Order, if granted by the Minister, will authorise the RPA to provide for the construction, operation and maintenance of a light railway between Sandyford Industrial Estate and Cherrywood. This is a 7.6km extension to the existing Luas Green Line currently operating between St. Stephen's Green and Sandyford.

Archaeological pre-development testing was carried out within a stretch of the proposed route for the LUAS line extending between Lehaunstown road to South of the Laughlinstown River from Thursday 1st June 2006 to Friday 9th of June 2006.

A centreline test trench the entire length of the proposed corridor with offset trenches every 15m across the 30m width of the corridor was used to try and identify archaeological remains within the zone of development. In the area of the temporary compound, the testing strategy was changed slightly to include seven roughly parallel trenches, the longest being 80m in length and each being 2m in width. Any areas with possible archaeological features were expanded to find their extent and given site numbers.

Two main areas of archaeology were uncovered in Brenanstown during testing. Located within the area of a proposed temporary works compound they were allocated site numbers 3A and 3B.

Another very minor area of possible archaeology (Site 2) was located at the start of the LUAS centreline in Brenanstown. This small site was subject to further investigation, but turned out to be not archaeologically significant. This area was the subject of a separate report, already forwarded.

Site 3A and 3B had high archaeological potential but the developer is opting to preserve the remains in-situ, pending approval by the NMS and NMI. The two main sites were located within the area designated as a temporary compound for the construction of the LUAS.

Summary of findings:

06E 214 Brenanstown Site: # 3A

An (L) shaped area was opened up, roughly 22m by 20m, to expose possible archaeological features noticed in the test trenches (figure 4). Many possible features were noticed along with associated in-situ burnt patches. One feature was sectioned in half, and was a fairly convincing small possible post pit with packing stones. There also appeared to be possible slot trenches, post holes, pits and associated burnt patches. This may be a small part of a much larger site not fully exposed yet. No datable evidence was retrieved but the feature types suggest that this site would be possibly Prehistoric in date. The possibility of unexposed archaeological remains is very high.

06E 214 Brenanstown Site: # 3B

An area of 6m by 7m was opened up to investigate a burnt patch which showed up in the test trench, (figure 5). There seemed to be possible pit or posthole type features surrounding the burnt patch. This represents similar remains to those uncovered in the previous site. A small flint core was uncovered while cleaning back one of the features suggesting a possible Prehistoric date. It would appear that this is part of the same archaeological complex of features of Site 3A. The possibility of unexposed archaeological remains is very high.

Summary of mitigation:

06E 214 Brenanstown Site # 3A and Site # 3B

A management plan has been prepared for sites 3A and 3B and has been submitted to National Monuments Section of D.O.E.H.L.G. for approval.

1. Introduction

1.1. *Site location*

Sites 3A and 3B are located in the townland of Brenanstown, c. 250m to the south of Brenanstown Road, Co. Dublin, in the civil parish of Tully and the Barony of Rathdown, (Site 3A NGR 322885E, 223968N; Site 3B NGR 322835E, 223932N; See Figure 1). The route of the proposed development extends proximate to two sites listed in the Record of Monuments and places: a Portal Tomb c. 75-150m to the northeast of this section of the line (DU026:007: located to the north of a small stream), a mill site c. 300m to the west (DU026:0080) and an enclosure (DU026:006) to the south.

1.2. *Solid geology and soils*

The geology of the area consisted of granite bedrock overlain by late Pleistocene glacial tills, mainly grey brown podzolic soils.

1.3. *Characteristic of the proposed development*

The Railway Procurement Agency ('RPA') has submitted an application for a Railway order for submission to the Minister for Transport under Section 37 of the Transport (Railway Infrastructure) Act 2001. The Railway Order, if granted by the Minister, will authorise the RPA to provide for the construction, operation and maintenance of a light railway between Sandyford Industrial Estate and Cherrywood. This is a 7.6km extension to the existing Luas Green Line currently operating between St. Stephen's Green and Sandyford.

This report concerns pre-development testing of a temporary compound area for the LUAS to the South of the Brennanstown road.

The development footprint in this area encompasses 9500m². It consists of a rectangular area c. 95m east-west by 100m north-south where a compound for the site works will be located. The area is currently undeveloped.

1.4. *Purpose of assessment*

Pre-development testing was used to determine whether there were any archaeological deposits within the area to be impacted upon by the construction of the site compound or within the adjacent section of the LUAS corridor. Test trenches will seek to determine if any archaeological deposits are present along with their nature and extent, this will inform an appropriate mitigation strategy for the proposed development. Features of likely archaeological significance identified during testing will be fully exposed in plan (where possible), assessed and recorded. Limited hand excavation was undertaken to clarify the depth and nature of any such deposits. The features were then secured from any further impact or intrusion pending the production of a report and consultation with the National Monuments Service on appropriate mitigation. Should features of very limited archaeological significance be exposed a decision may be taken to excavate them under the existing licence. Where no archaeological features are exposed trenches will be excavated to the surface of natural soils.

2. Baseline Survey

2.1. *Introduction*

For the purpose of setting the proposed development within its wider archaeological and cultural heritage landscape, and to assess the archaeological potential of the site, a comprehensive paper survey of all available archaeological, historical and cartographic sources was undertaken.

2.2. *Recorded archaeological sites and monuments*

The Record of Monuments and Places was consulted for the relevant parts of Dublin. This is a list of archaeological sites known to the National Monuments Service. The relevant files for these sites contain details of documentary sources and aerial photographs, early maps, OS memoirs, OPW Archaeological Survey notes and other relevant publications. These were studied in the Sites and Monuments Records Office. All sites within a radius of c. 1km of the proposed development were identified. These monuments are listed in Appendix 6.

2.3. *Recorded archaeological finds*

The topographical files in the National Museum of Ireland were consulted to determine if any archaeological artefacts had been recorded from the area. This is the National archive of all known finds recorded by the National Museum. It relates primarily to artefacts but also includes references to monuments and has a unique archive of records of previous excavations. Other published catalogues of prehistoric material were also studied: Raftery (1983 - Iron Age antiquities), Eogan (1965; 1993; 1994 - bronze swords, Bronze Age hoards and goldwork), Harbison (1968; 1969a; 1969b - bronze axes, halberds and daggers) and the Irish Stone Axe Project Database (Archaeology Dept., U.C.D.). All townlands within the study area were assessed. A list of recorded finds from the area is given in Appendix 7.

2.4. *Cartographic sources*

Reference to cartographic sources is important in tracing land use development within the development area as well as providing important topographical information on sites and areas of archaeological potential. Primary cartographic sources consulted consisted of the Ordnance Survey 6" maps, first and later editions (T.C.D. Map Library). Earlier cartographic sources consisted of the Down Survey Barony map of c. 1655 (Rialtas na hEireann 1980) and Taylor's map of the Environs of Dublin dating from 1816 (Phoenix Maps).

2.5. *Previous Excavations*

The excavation bulletin website (www.excavations.ie) was consulted to identify previous excavations that may have been carried out within the study area. This database contains summary accounts of excavations carried out in Ireland from 1985. The available *Excavations* publications were also consulted. Details of previous excavations are listed in Appendix 8.

2.6. *Historical research*

Primary historical sources consulted included Primary historical sources consulted included the *Christ Church Deeds* (McEnery and Refausse 1999), the *Calendar of Archbishop Alen's Register 1172-1534* (McNeill 1950), *The first Chapter Act book of Christ Church Cathedral, Dublin 1574-1634* (Gillespie 1997) and *The Account Roll of the Priory of the Holy Trinity, Dublin, 1337-1346* (Mills 1890-91) and the Civil Survey AD1654-56: Volume VII County of Dublin (Simington 1945). The most useful secondary

source consulted concerning the general history of the area was 'A much disputed land: Carrickmines and the Dublin marches' (O'Byrne 2003).

3. Archaeological and Historical Background (by Donal Fallon)

3.1. *Prehistory (c. 7000 BC - AD 500)*

A portal tomb (DU026:007 – a National Monument) is located between 75-100m to the north of the development corridor, and c. 200m northeast of the proposed compound site. Portal tombs generally consist of a sub-rectangular chamber flanked by a pair of tall portal stones, usually capped by a single capstone; the capstone of the portal tomb at Brenanstown has an estimated weight of 40-60 tons. The limited evidence to date suggests they date from the early Neolithic, the fourth millennium BC (Waddell 1998, 88-92).

3.2. *Early medieval period (c. AD 500 - 1170)*

An enclosure listed in the Records of Monuments and Places (DU026:006) is located c. 200m to the south of the current development. This is marked on the 1st Edition Ordnance Survey map of 1837 and is likely to be a ringfort of early medieval date (Deery & Halpin 2005).

3.3. *Late medieval and post medieval period (c. AD 1170 - 1900)*

The townland of Brenanstown, was originally 'Baile na mBretnach' the town of the Welsh, and it has been suggested that Welsh colonists were well-established in this area sometime to 1169 (O'Byrne 2003, 231-2). Brenanstown was within the manor of Clonkeen, a possession of the Priory of the Holy Trinity (Christchurch) from prior to 1169 (O'Byrne 2003, 230, 237; McNeill 1950, 28). In 1326 Maurice Howell was holding the adjacent townlands of 'Carrickmayn' and 'Balybrenan' (Mills 1890-91, 195). The Howels, were a prominent landholding family of apparent Welsh origin possibly established in the area prior to 1169, but extinct by 1372 They appear to have been closely related to the Walshes, the other main landholding family of the area (O'Byrne 2003, 232, 241). In 1372 Brenanstown was leased to 'Thomas Walsch, Chaplain' on the condition that he 'build and maintain a stone house on the premises within four years' (McEnery & Refausse 1999, 717).

From the late 13th century into the modern period the area surrounding Carrickmines was a disputed marchland. Its Welsh and Anglo-Norman settlers were subject to frequent attacks from the O'Byrnes and the O'Tooles of Wicklow. Maurice Howel held Carrickmines castle, a substantial castle which was central to the defence of the region, for much of the first half of the 14th Century. In this capacity he was responsible for the defence of the colonists and was retained by the Crown to act as guardian of the Leinster Marches. Despite his stewardship much of the area was laid waste by O'Byrne raids. Carrickmines was refortified in 1359, besieged by Gaelic forces the same year, relieved by the forces of the Earl of Ormond, garrisoned with a cavalry force in 1360 and was besieged twice more in the same century. By 1388 the castle was housing a standing cavalry force which carried out punitive raids into the lands of the Wicklow tribes. Carrickmines was in the possession of the Walsh family by 1400 and many of the possessions of the Howels appeared to have passed to the Walshes who held the Castle until the 17th Century (O'Byrne 2003, 237-241). The remains of the castle are located c. 1km to the west of the current development.

The *Down Survey* Barony map of 1655 marks what appears to be a castle within the townland, apparently some distance to the north of the river, and also depicts a structure or structures on the northern bank of the river. The Civil Survey of 1654-56 lists the townland as containing:

'one Castle Thatcht, a garden plot, one Tuckmill, one Corne Mill' (Simington 1945, 276).

This section of the development is also *c.* 300m east of DU026:080 – the site of a watermill marked on the Down Survey (1655) and First Edition Ordnance Survey (1837) maps, which may be presumed to be one of the mills listed in the Civil Survey (Deery & Halpin 2005).

The Census of 1659 lists the townland as containing 18 adults, of whom 4 were 'English' including 'Valentine Wood gent' (Pender 1939, 381). In 1664 'Ballybrenan alias Brenanstowne' was leased to William Lightburne, and in 1679 to William Moreton, both officials of Christchurch (McEnery & Refausee 1999, 1643, 1824).

3.4. *Archaeological significance of the sites*

The development corridor extends adjacent to a number of recorded monuments, within an area densely settled during the Medieval period.

06E 214 Brenanstown Site: 3A and 06E 214 Brenanstown Site: 3B

Many possible features were noticed along with associated in-situ burnt patches. One feature was sectioned in half, a very convincing small possible post pit with packing stones. There also appeared to be possible slot trenches, post holes, pits and associated burnt patches. This may be a small part of a much larger site not fully exposed yet. No datable evidence was retrieved apart from a couple of flint flakes and cores, which along with the feature types suggests that this site could be Prehistoric in date. The general landscape setting of the site on top of a low flat hill with good views all around, the proximity to the nearby river and fertile soils would have made a suitable settlement area. The archaeological significance of these sites is quite high and the possibility of unexposed archaeological remains is very high.

4. Archaeological Assessment

4.1. *Methodology*

After consultation with the National Monuments Section of the Department of the Environment, Heritage and Local Government the following strategy was agreed:

Much of the line of the LUAS in this section extends along the route of the pre-existing Harcourt Street Line: This will be subject to a separate licence application for archaeological monitoring. The area of the compound to the south of the line, and the section of the LUAS corridor which diverges from the Harcourt Street Line as far as the adjacent boundary to the south, and then across the road into the Laughanstown townland was subject to pre-development testing.

A centreline and offset testing strategy was adopted similar to that used in other linear developments such as roads. A centreline trench was dug by a machine with a flat bladed ditching bucket with a width of 2m, along the length of the LUAS development corridor. Offset trenches were dug at right angles to the centreline trench every 15m with a 30m width across the development area. There are also areas where temporary construction compounds are to be located beside the main LUAS development corridor. These were also subject to test trenches to investigate any possible archaeological activity. If any archaeological features were located during testing an effort was made to find out the full extent, if possible. Each area that was opened up to define the extent of possible archaeological features was given a site number.

4.2. *Results*

Results of test trenching. (See appendix 1)

4.3. *Results*

Results of areas expanded and investigated during test trenching of proposed temporary compound.

06E 214 Brenanstown Site 3A

This site was located in the proposed area of the temporary compound just at the top of a small flat topped hill of undisturbed pasture. An (L) shaped area was opened up, roughly 22m by 20m, to expose possible archaeological features noticed in the test trenches. Many possible features were noticed along with associated in-situ burnt patches. As the area exposed was quite large, no attempt was made to hand clean all the features. A few selected small areas were cleaned thoroughly and only one feature was sectioned in half, a small possible post pit (F204) length 0.75m, width 0.50m and depth 0.35m+ with convincing packing stones within the fill. In the main area there appeared to be a couple of possible house type structures with possible slot trenches, post holes, pits and associated burnt patches. This may be a small part of a much larger possible settlement site not fully exposed yet. Possible pit (F220), possible pit (F222), burnt patch (F208), possible slot trench (F218) and possible posthole (F204) seemed to be part of one possible structure. The other possible structure seemed to be located around burnt patches (F207), (F212) and (F213). No secure datable evidence was retrieved and only one feature was tested but the generally ephemeral feature types suggest that this site could be Prehistoric in date. In the third test trench opened to the South of the main site an upstanding boulder, (F206) length 2.40m and width 2.00m, was found surrounded by much smaller cobbles, could possibly be a boulder burial. While cleaning around the cobbles in this feature a small flint flake was found, perhaps suggesting a Prehistoric date. Overall this area appears to be rich in archaeology of a possible Prehistoric date. The possibility of unexposed archaeological remains is very high.

06E 214 Brenanstown Site 3B

This site was located in the proposed area of the temporary compound just at the top of a small flat topped hill in the second field of undisturbed pasture. This much smaller site is around 30m to the West of site 3A and seemed to contain much the same type of features. An area of 6m by 7m was opened up to investigate a burnt patch which showed up in the seventh test trench. There seemed to be possible pit or posthole type features surrounding the burnt patch. This could represent another possible structure similar to those uncovered in the previous site. A small flint core was uncovered while cleaning back a possible pit, (F404) length 2.20m and width 1.65m suggesting a possible Prehistoric date. No features were tested on this site and only a clean back of the general area was attempted around possible posthole (F408), possible pit (F404) and burnt patch (F406). It would appear that this could be part of the same archaeological complex of features as site 3A. The possibility of unexposed archaeological remains is very high.

5. Potential Impact of the Proposed Development

5.1. *Introduction*

The LUAS is a major infrastructure development. Any archaeological features located in testing within the main LUAS corridor will be completely removed by the resulting development. Therefore any features must be preserved by record within the main construction corridor up to the width of the C.P.O. The developer is more flexible in the areas located for use as temporary compounds with preservation in-situ of any archaeological remains a viable alternative to excavation and preservation by record.

5.2. *Archaeological Impact Assessment*

There would be an impact on the archaeology from this development. A management plan has been prepared to manage the impact caused by the development.

6. Recommended Avoidance, Remedial or Reductive Measures

06E 214 Brenanstown Site 3A and Site 3B

Recommendations for the management of archaeology at sites 3A and 3B have been made and are currently awaiting approval by the National Monuments Section of the D.O.E.H.L.G.

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Appendix 1 Test trenches.

Brenanstown Temporary compound area 06E 214

Temporary compound Trench No. 1	Orientation: North/South
Length: 80m	Width: 2m
This trench was dug along the Eastern edge of the compound. Depth on average was 0.60m. Burnt features uncovered 22m from the Northern edge of the compound. (Site # 3A)	
Temporary compound Trench No. 2	Orientation: North/South
Length: 80m	Width: 2m
This trench was dug parallel to trench 1. Depth on average was 0.40m to 0.50 m. Burnt features uncovered 19m from the Northern edge of the designated compound. (Site # 3A)	
Temporary compound Trench No. 3	Orientation: North/South
Length: 80m	Width: 2m
This trench was dug parallel to trench 2. Depth on average was 0.40m. Burnt features uncovered 19m from the Northern edge of the designated compound. (Site # 3A)	
Temporary compound Trench No. 4	Orientation: North/South
Length: 80m	Width: 2m
This trench was dug parallel to trench 3. Depth on average was 0.30m. Few small possible burnt spots.	
Temporary compound Trench No. 5	Orientation: North/South
Length: 50m	Width: 2m
This trench was dug parallel to trench 4. Depth on average was 0.50 m. No features noticed.	
Temporary compound Trench No. 6	Orientation: North/South
Length: 28m	Width: 2m
This trench was dug parallel to trench 5. Depth on average was 0.40m. No features noticed.	
Temporary compound Trench No. 7	Orientation: North East/South West.
Length: 80m	Width: 2m
This trench was dug parallel to the hedge in the second field. Depth on average was 0.40m. Burnt features uncovered 58m from the Northern edge of the compound. (Site # 3B)	

Appendix 2

Feature Register. Brenanstown, Temporary compound area, Site 3 A. 06E214.

F. No	Feature Type	Period	Max. Length	Max Width	Max Depth	Feature Description	Feature Interpretation
200	Deposit	Modern	24 m	20 m	0.10 m	Homogenous sod layer exposed across full extent of excavation. Very mixed soil mainly silty clay with sand inclusions. Roots. Grass. Moderate amount of pebbles and stones.	Sod layer related to cultivation.
201	Topsoil Deposit	No period	24 m	20 m	0.15 m	Homogenous topsoil layer exposed across full extent of excavation. Very mixed soil mainly silty clay with sand inclusions. Roots. Grass. small amount of pebbles and stones	Topsoil layer related to cultivation.
202	Deposit Sub soil.	Unknown	24 m	20 m	0.15 m	Layer of plough soil under F2. This layer consists of light brown silty clay. It contains occasional roots, pebbles and stones.	Sub soil layer related to cultivation.
203	Natural	No period	24 m	20 m	-	It consists of two types of natural. The main one is light yellow brown silty clay with sand inclusions. The other one consists of patches of mid brown to dark brown silty clay with large amount of stones and gravel.	Natural subsoil deposit across extent of excavation.
204	Fill for F205	Unknown	0.75 m	0.50 m	0.35 m	The fill consists of mid to dark brown silty clay with a moderate amount of charcoal, especially located in the upper part of the fill. More than 60% of the fill is made of stones and cobbles. This can suggests packing for two postholes or a deliberate filling of the feature. It was half sectioned. The half section was not based as the stones have been left in situ.	Fill for a possible posthole F205. There is possible packing for two postholes in it.
205	Cut for posthole or pit.	Unknown	0.75 m	0.50 m	0.35 m	Sub oval possible posthole or pit. The fill F204 is mainly made of cobbles and stones. This suggests possible packing for two postholes or a deliberate filling. The feature was half sectioned but not fully based as the stones have been left in situ.	Possible posthole or pit. Only half sectioned and not based.
206	Possible feature	Unknown	2.40 m	2.00 m	-	Large boulder with a layer of smaller stones around it. The boulder, not fully exposed, is 1.10 m to 1.80 wide, and 0.35 height.	Large granite boulder surrounded by a layer of smaller stones. Two flints were uncovered in this layer. It is not clear if the feature is archaeological or not.

F. No	Feature Type	Period	Max. Length	Max Width	Max Depth	Feature Description	Feature Interpretation
207	Deposit	Unknown	0.55 m	0.30 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north/south.	Sub rectangular burnt patch that can be related with another burnt patch F212. The deposit was not tested. The period and function are unknown
208	Cut for Possible slot trench	Unknown	3.50 m	1.00 m	-	Possible slot trench running north/south. This feature was not fully excavated and not fully exposed as it continues under the northern edge. There is a large amount of burnt patches in the fill F211.	Possible slot trench running north/south. The feature was not tested. It could be related with another feature, F218. The period and function are unknown
209	Deposit	Unknown	1.30 m	0.50 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north west/south east.	Sub rectangular burnt patch. The deposit was not tested. The period and function are unknown
210	Deposit	Unknown	1.60 m	0.80 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north/south. The feature is not fully exposed as it continues under the eastern edge of the site.	Sub rectangular burnt patch. The deposit was not tested. The period and function are unknown
211	Fill for F208	unknown	3.50 m	1.00 m	-	Possible slot trench running north/south. The fill consists of light orange brown silty clay with burnt patches. The fill is plastic, dry and moderately sorted.	Fill for possible slot trench F208, running north/south. The period and function are unknown
212	Deposit	unknown	1.55 m	0.90 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north/south.	Sub rectangular burnt patch. The deposit was not tested. The period and function are unknown
213	Deposit	unknown	1.60 m	0.60 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north/south. The feature is not fully exposed as it continues under the western edge of site.	Sub rectangular burnt patch. The deposit was not tested. The period and function are unknown
214	Deposit	unknown	2.45 m	1.50 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north-west/south-east. The feature is not fully exposed as it continues under the western edge of the site.	Sub rectangular burnt patch. The deposit was not tested. The period and function are unknown

F. No	Feature Type	Period	Max. Length	Max Width	Max Depth	Feature Description	Feature Interpretation
215	Deposit	unknown	2.00 m	1.30 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north/south.	Sub rectangular burnt patch. The deposit was not tested. The period and function are unknown
216	Deposit	unknown	2.50 m	1.30 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north/south. The feature is not fully exposed as it continues under the western edge.	Sub rectangular burnt patch. The deposit was not tested. The period and function are unknown
217	Deposit	unknown	1.00 m	0.75 m	-	Sub oval burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The orientation is north/south. The feature is not fully exposed as it continues under the western edge.	Sub oval burnt patch. The deposit was not tested. The period and function are unknown
218	Fill for F218	unknown	6.00 m	0.85 m	-	The fill consists of mid to dark brown silty clay. It is dry, plastic, and moderately sorted. There is a moderate amount of pebbles and cobbles.	Fill for linear feature F218.
219	Cut for linear feature	unknown	6.00 m	0.85 m	-	The feature was not excavated. It has a very regular edge. Its relationship with F208 is not clear. It has some similarities in shape with F220. There is also a large burnt patch at the corner of the feature. This could be a ditch or slot trench.	Linear feature that runs east/west first and then turns in a straight corner in direction of north/south. The period and function are unknown
220	Fill for F221	unknown	4.20 m	0.70 m	-	The fill consists of light to mid brown silty clay with large amount of pebbles, cobbles and occasional stones. It is also dry, plastic and moderately sorted.	Fill for cut F221.
221	Cut for linear feature	unknown	4.20 m	0.70 m	-	Linear feature running east/west and turning straight in a corner in direction of north/south. The feature is not excavated. This is a possible ditch or a slot trench. The feature has a similar shape as F218. The relationship between the two is unknown.	Linear feature. Not excavated. The period and function are unknown.
222	Fill for F223	unknown	1.70 m	1.05 m	-	The fill is mid brown silty clay with large amount of pebbles, cobbles and occasional stones. It is also dry, plastic and moderately sorted.	Fill for Cut F223
223	Cut for a sub oval pit	unknown	1.70 m	1.05 m	-	This feature was not excavated or tested. It seems to be a sub oval pit but it is not proved.	Possible sub oval pit with north/south orientation.
224	Deposit	unknown	2.60 m	0.60 m	-	Sub rectangular burnt patch. The deposit consists of light orange/red silty clay. It is plastic, dry and moderately sorted. The feature is not fully exposed.	Sub rectangular burnt patch. The deposit was not tested. Unknown date.

F. No	Feature Type	Period	Max. Length	Max Width	Max Depth	Feature Description	Feature Interpretation
225	Fill for cut F226	unknown	0.50 m	0.25 m	-	Dark brown silty clay. The feature was not excavated.	Fill for F226
226	Cut for a possible posthole	unknown	0.50 m	0.25 m	-	This feature was not excavated. It seems to be a posthole.	Sub oval posthole. the feature was not tested. The period and function are unknown.

Appendix 3

Feature Register. Brenanstown, Temporary compound area, Site 3 B. 06E214.

F. No	Feature Type	Period	Max. Length	Max Width	Max Depth	Feature Description	Feature Interpretation
400	Deposit	Modern	7.10	6.25	–	The deposit consists of very mixed sol, mainly dark brown clayey silt. There are moderate amount of cobbles and pebbles. It is loose, dry and poorly sorted. There are a lot of grass and roots.	Sod layer covering the entire site. This deposit is the result of modern cultivation.
401	deposit	Modern	7.10	6.25	–	The deposit consists of very mixed sol, mainly mid brown clayey silt. There are moderate amount of cobbles and pebbles. It is loose, dry and poorly sorted. Occasional roots.	Topsoil layer covering the entire site. This deposit is the result of modern cultivation. The topsoil is just under the sod layer.
402	deposit	Modern	7.10	6.25	–	The deposit consists of very mixed sol, mainly light brown clayey silt. There are moderate amount of cobbles and pebbles. It is loose, dry and moderately sorted. Occasional roots.	Subsoil layer covering the entire site. This deposit is the result of modern cultivation. The subsoil is just under the topsoil layer.
403	Natural	–	7.10	6.25	–	There are two different types of natural. The main natural is light yellow sandy clay with a small amount of cobbles and pebbles. The other one is more patchy and consists of dark brown silty clay with a large amount of pebbles, cobbles and stones.	Natural
404	Fill of F407	Unknown	2.25	1.75	–	The fill consists of light brown clayey silt with occasional sand inclusion. There are frequent pebbles, cobbles and stones. There is occasional charcoal. One flint was found in it (find:06E214:404:1)	Fill of possible large pit F407.
405	Cut for a pit or burnt patch	Unknown	0.75	0.70	–	This feature is sub rectangular in plan and oriented North/South. The feature was not tested and the edges of it are not clear.	Very stony feature with charcoal, burnt clay and ash. The feature may be a pit or just a burnt patch.
406	Deposit	Unknown	0.80	0.40	–	Burning in situ that consists of a small amount of charcoal with some burnt clay around it. The feature was not excavated.	Burning in situ. The period and function is unknown.
407	Cut for pit	Unknown	2.25	1.75	–	Sub circular feature oriented north/south. The feature was not totally exposed as it continues under the eastern edge of the site. The feature was not excavated and the edges are a bit unclear. The fill, F404, is stony and contains charcoal. One flint was found in this fill. (find:06E214:404:1)	The feature may be a large pit but was not tested. The period is unknown.

F. No	Feature Type	Period	Max. Length	Max Width	Max Depth	Feature Description	Feature Interpretation
408	Fill for F405	Unknown	0.75	0.70	-	The fill consists of light brown, light red and light grey in colour. The composition is clayey silt, friable, dry and poorly sorted. The fill is mixed, with a small amount of charcoal, light red burnt clay and possible grey ash.	Fill for a possible pit or burnt patch.

Appendix 4

Archaeological Finds Recovered from Brenanstown 06E214 site 3 A.

Find	Feature	Material	Type	Period	Description
06E214:201:1	F201	Flint	Flake	Unknown	Flint flake
06E214:206:1	F206	Flint	Possible scraper	Unknown	Possible flint scraper

Archaeological Finds Recovered from Brenanstown 06E214 site 3 B.

Find	Feature	Material	Type	Period	Description
06E214:404:1	F404	Flint	Large flake	Unknown	Large flint flake

Appendix 5

Samples Recovered from Brenanstown, Temporary compound area, 06E214, Site 3 A

Sample	Feature	Size	Type	Period	Purpose
Sample #1	F204	2 x 5 litre bags	Dark brown fill of possible posthole with moderate amount of charcoal flecks	Unknown Possibly Prehistoric	Dating

Appendix 6

Recorded Archaeological Sites and Monuments

The recorded archaeological sites within the vicinity of townlands of the proposed development are listed below, all noted in the Record of Monuments and Places for South County Dublin. The monuments are listed in a standard format as follows:

List of Recorded Monuments

Mon. No.	Inv. No.	ngr x	ngr y	Townland	Classification
Description					

DU026:080		32249 32250	22396 22395	Brennanstown/Carrickmines	Watermill site
Both sites are marked on the 1837 Ordnance Survey map as the 'Site of an Ancient Mill'. The site is also marked on the Down Survey Map of 1655. Ordnance Survey letters (1837) include sketches which show foundations of rectangular buildings and a feature marked as an 'Old Quern' a series of enclosures are marked to the south of these.					

DU026:007		32290	22419	Brennanstown	Megalithic Tomb
Portal tomb (National Monument) with portal stones, each 1.53m in height, and a full door-stone. The tomb comprises a portico, a chamber and a suggestion of another chamber at the rear. The capstone is very large and roughly square, estimated weight 40-60 tons.					

DU026:006		32278	22378	Laughanstown	Earthwork
Marked 'Enclosure' on first edition of Ordnance Survey 1837. This is likely to have been a ringfort-type earthwork and therefore approximately 30-50m in diameter with a surrounding area of interest of approx. 20m.					

Appendix 7

Archaeological Finds

The recorded archaeological finds in the vicinity of the site are listed below, all noted in the National Museum of Ireland files, Kildare Street, Dublin 2, in local journals, or in other published catalogues of prehistoric material: Raftery (1983), Eogan (1965; 1983; 1994), Harbison (1968; 1969a; 1969b) and the Irish Stone Axe Project Database. The following townlands were assessed; Brenanstown.

No archaeological finds are listed from the Brenanstown townland

Appendix 8

Previous excavations

Previously published archaeological excavations in the area from 1969 to 2001 (www.excavations.ie) are summarised below. These are listed in a standardised format as follows:

List of excavations:

Townland Site type Author (Publication)	Year: Excavation No. National Grid
Description	

List of excavations:

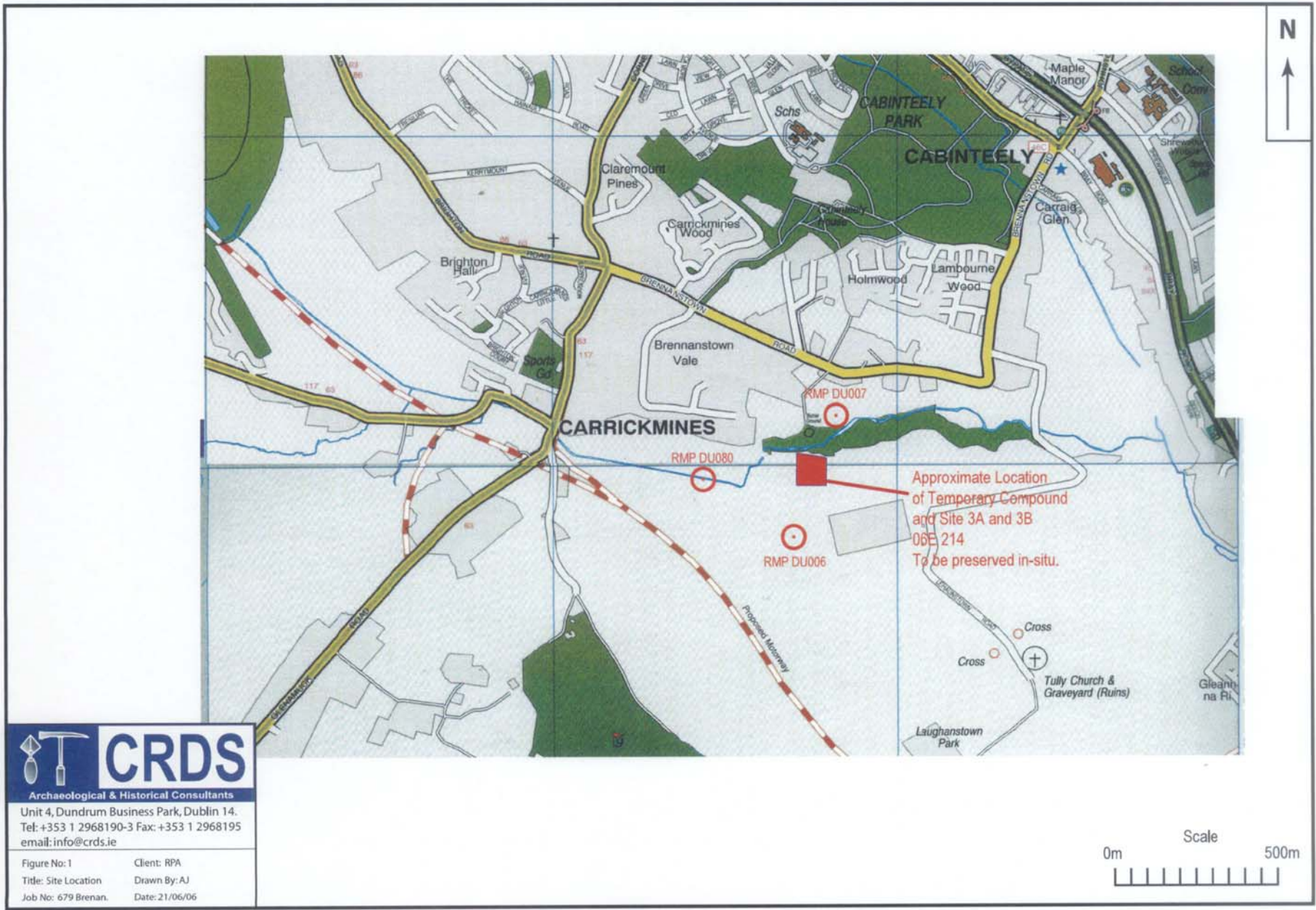
BRENNANSTOWN, CABINTEELY Brick making facility SMR 26:119 Stuart D. Elder	2003: 03E 1494. National Grid 32374 22453
<p>Testing was carried out between 8 and 11 September 2003 on an 11.5-acre site in Brennanstown, Cabinteely, in advance of a residential development comprising 230 dwelling units.</p> <p>The method of testing employed was a series of long strip trenches, excavated mechanically, with perpendicular offshoots at regular intervals, to cover an area of approximately 3700 m². Due to a propensity of services towards the eastern site boundary, it was not possible to test in this location.</p> <p>Testing revealed a brick-making facility, measuring approximately 625m², within the footprint of the proposed underground carpark, and a fulacht fiadh of 8-10m in diameter on the eastern side of the stream. The former site will be directly affected by the development, whereas the latter site will not be impacted upon.</p> <p>It was recommended that the brickworks site be excavated in advance of construction, and that monitoring of the eastern entrance and footpaths be undertaken.</p>	

BRENNANSTOWN, CABINTEELY Post-medieval brick clamp SMR 26:119 Brian Halpin	2003: 03E 1681 National Grid 809590 130523
<p>This site was excavated from 13 to 25 October 2003 in advance of the construction of a large housing development. The site was the levelled remains of a post-medieval brick clamp. It was located in a greenfield site on relatively flat ground on a slight rise in the natural topography approximately 400m west of the Loughlinstown/Cabinteely River. The site was characterised by a long linear feature running 33.75m north-south by 8.25m. This feature contained almost continual rows or columns containing different fills, which were the result of firing activities within the clamp which would have produced a fairly high number of rough bricks in a relatively short time. Although there is no visible above-ground remains of the clamp itself, the columns of scorching and remnant brick debris scattered throughout the site are clearly visible. The area surrounding the site was cleaned back by mechanical digger and no further evidence of brick deposits or associated structures was encountered.</p> <p>The clamp is believed to have been constructed in a fairly simple fashion. A shallow concave depression/pit was laid out on a fairly level area. This was filled with large amounts of wood for burning. It is believed to have been gorse, which was readily available on the surrounding hillsides and was known to have been used in clamps in the Dublin area. Interspersed throughout the columns of brick was a dedicated column of coke specially prepared and placed within the columns of brick due to its unique ability for sustained burning after the heat from the underlying wood had lost its intensity. The coke inclusions would continue burning for an extended period of time and eventually be transformed into a very hard concrete/slag-like material when the fuel completed its firing cycle. The coke, being close to the columns of brick, would in some instances have brick burnt into its fabric, so that it was difficult to distinguish entirely between the coke and the remnant brick. Although these columns were well defined and visible at the surface, the true nature of the site was revealed below the surface with a series of exploratory trenches excavated by hand through the length and width of the site.</p> <p>Trench 1 ran north-south (1m by 36m) through the length of the site from surface to subsoil. Trench 2 ran east-west (1m by 10m) through the width of the site from the surface to the subsoil.</p> <p>As the clamp was by its very nature an inefficient way to make bricks, there would inevitably have been a high degree of brick loss within the structure. This was the result of highly fluctuating degrees of heat in the clamp at two specific points. The edges of the clamp would realise too little heat, which would not see the bricks thoroughly</p>	

fired, rendering them of little use. At the centre of the clamp the great concentration of heat would render the bricks into one permanent mould, which would again be of no use.

Upon removal of the bricks, which are believed to have numbered roughly between 3-5000, the feature was then abandoned, as it was usually only made for one specific building project and not for long-term manufacture such as would be seen in a brick kiln. The sample of brick remaining, while poorly made and discarded as a viable building material, does provide a good example of the brick which was manufactured in the clamp. The bricks retain their traditional rectangular shape, with dimensions of 0.24m by 0.1m by 0.07m. It would appear that the bricks, although maintaining a uniform size, were not machine-moulded, as they were very rough-hewn with poor tempering material of silica flecks with small- and medium-sized gravel and with possible coke inclusions, which would help the brick to self fire in the heating process. There are no maker's Q marks on any of the bricks.

There were nine finds recovered from the site, of which eight are from the 18th and 19th century, which is believed to be the date of this site. These included partially corroded iron nails, a clay-pipe stem, an unidentified metal object and several fragments of modern ceramics. A flint side scraper was also recovered. This find is believed to be from a prehistoric period and was mixed in with the feature, bearing no relationship to it. All the finds were recovered from the surface. No finds were recovered from within the clamp itself.



CRDS
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Figure No: 1	Client: RPA
Title: Site Location	Drawn By: AJ
Job No: 679 Brenan.	Date: 21/06/06

Figure 1: Site Location LUAS B1 Line: Brennanstown, location of site 3A and 3B.



KEY

- Test trench
- Testing Area
- CPO
- Compond area

Site 3B Site 3A Site 2



Site: 3A & 3B
 Licence no.: 06E214
 CRDS Ref. no.: 679

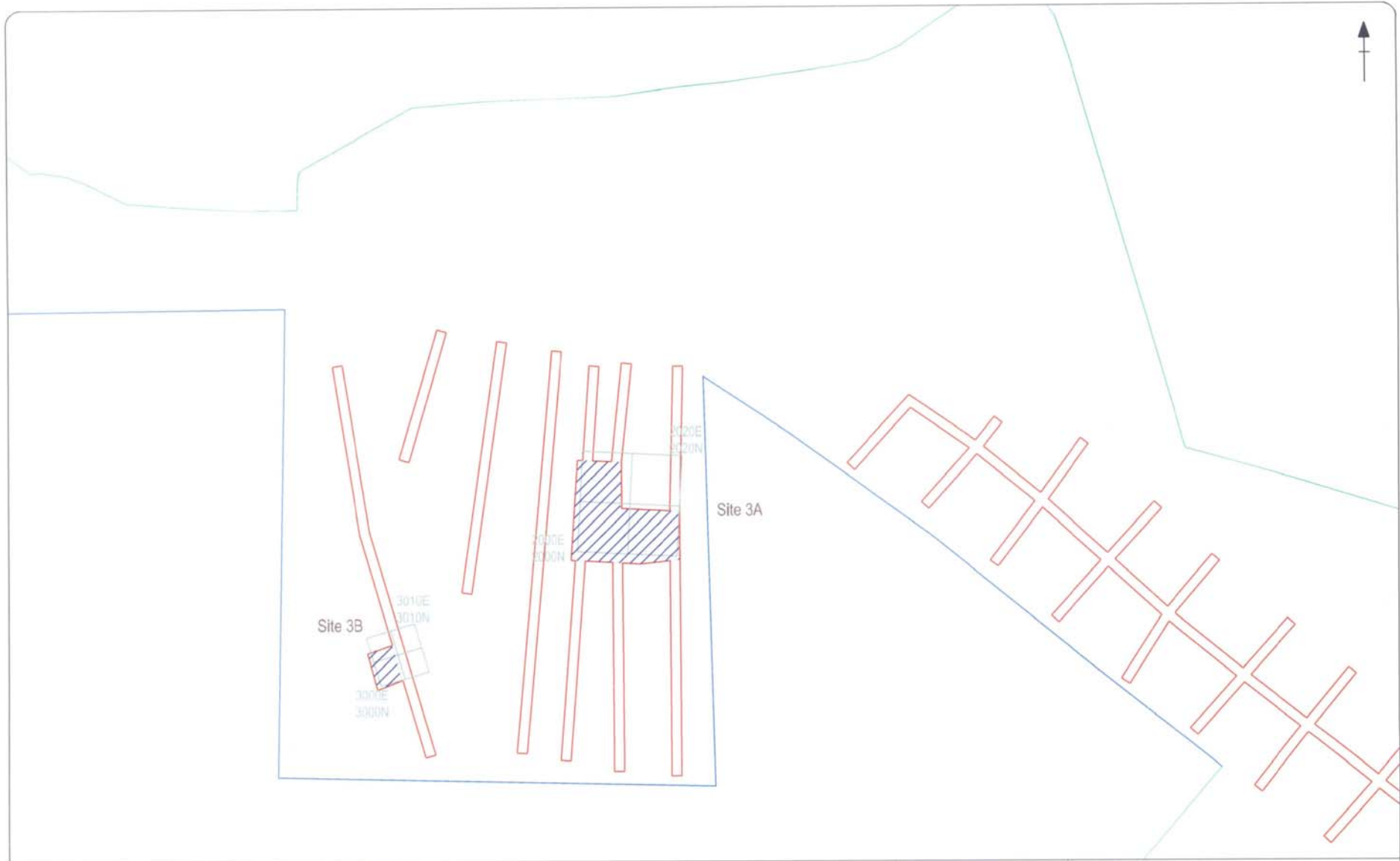
Client: R.P.A.
 Drawn by: NL
 Date: August 2006



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Figure 2

Figure 2: Location of site within RPA Development



SCALE 1:1000



KEY

- Test trench
- Site



- CPO
- Compound area
- Site grid



Site: 3A and 3B
 Licence no.: 06E214
 CRDS Ref. No.: 602
 Client : RPA
 Drawn by : NL
 Date : August 2006



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Figure 3

Figure 3: Location of site within RPA CPO

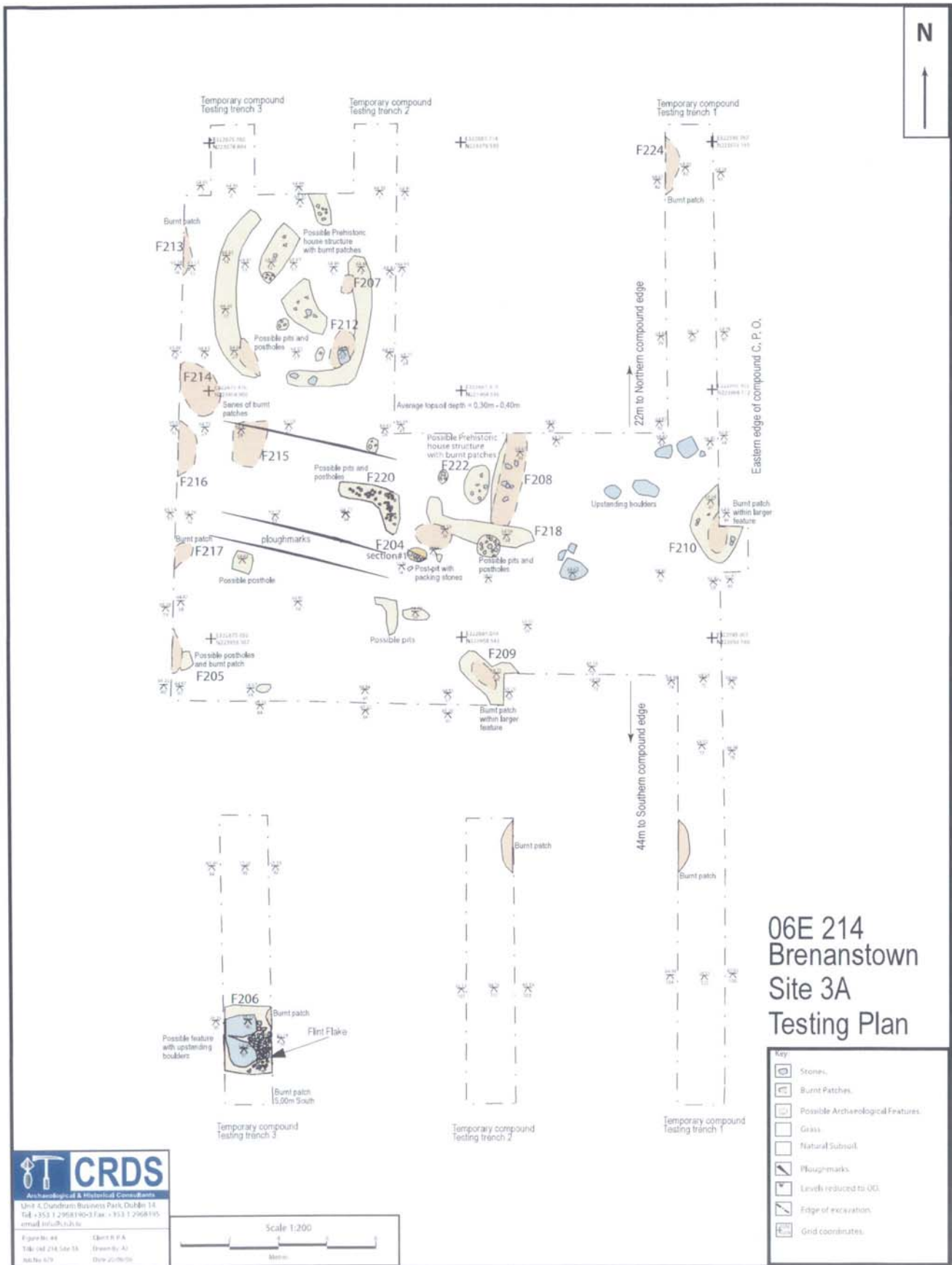
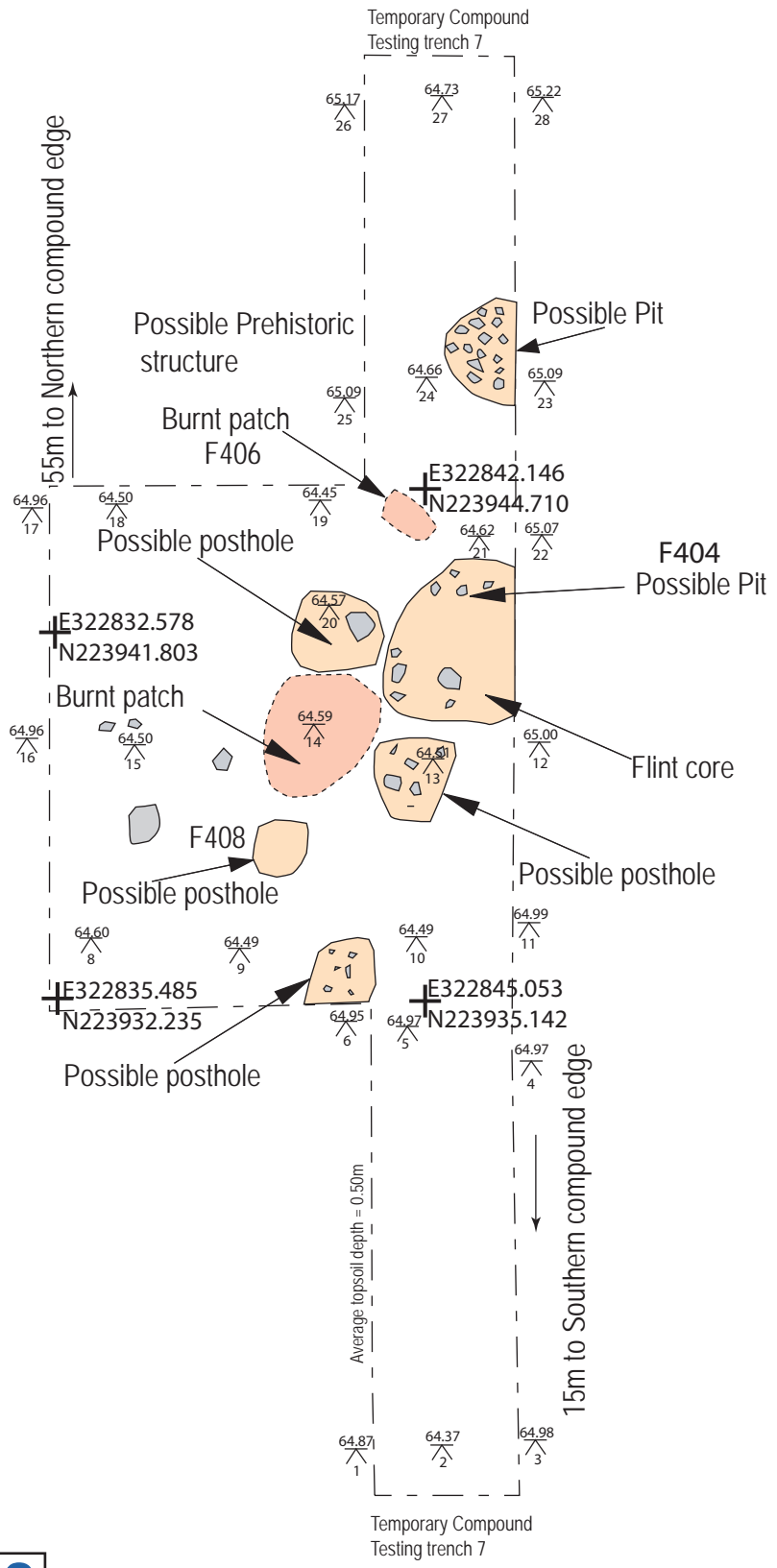


Figure 4: 06E214, Brenanstown, Site 3A, Testing plan.



06E 214
Brenanstown
Site 3B
Testing Plan

Key:

	Stones.
	Burnt Patches.
	Possible Archaeological Features.
	Grass.
	Natural Subsoil.
	Levels reduced to OD.
	Edge of excavation.
	Grid coordinates.



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Figure No: 5 Client: R.P.A.
Title: 06E 214, Site #3B Drawn By: AJ
Job No: 679 Date: 20/06/06

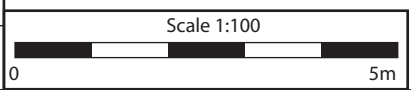
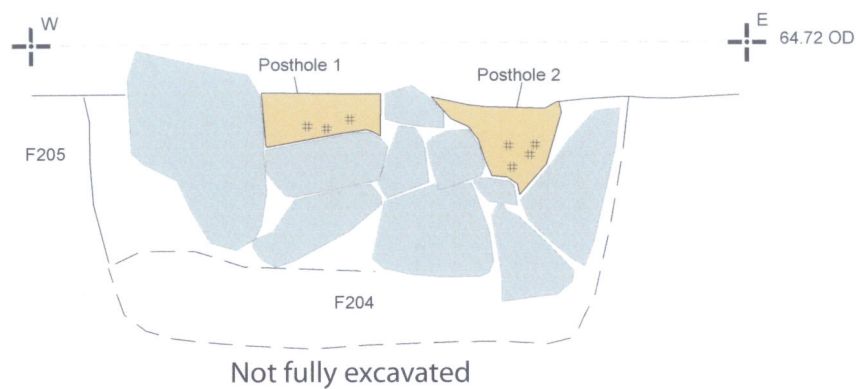


Figure 5: 06E 214 Brenanstown, Site 3B, Testing Plan.

06E0214
 Brenanstown Site 3A
 Section of F205
 Possible posthole pit
 with packing stones.



SCALE: 1:10



LEGEND

Finds

- # Charcoal
- X Bone
- ☒ Burnt bone
- ☐ Burnt stone
- ◻ Brick
- Wood
- Stone
- ◆ Pottery
- ◇ Slag

Contexts

- █ Packing Stones
- █ Charcoal / Burnt contexts
- █ Ash
- All other contexts
- █ Possible postholes

Boundaries

- Boundary of fill
- - - Change in slope
- Boundary of cut
- - - Context cut by other context
- - - Limit of excavation
- Level line
- - - Boundary unclear

Brennanstown

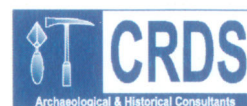
06E214

Job No.: 679

Date: June 2006

Client: Rail Procurement Agency

Drawn by: LC



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Figure 6 : South facing section of pit F205, Site 3A, with two possible postholes and packing stones.



Plate: 1 06 E 214, Brenanstown, Site 3A, F204, Large post-pit with packing stones and charcoal lumps, facing North.



Plate: 2 06 E 214, Brenanstown, Site 3A, F206, Large feature with upstanding boulder and surrounding stones, facing North.



Plate: 3 06 E 214, Brenanstown, Site 3A, F207 Large burnt patch and associated features, possible Prehistoric settlement evidence, facing North East.



Plate:4 06E 214, Brenanstown, Site 3A, General site shot,
Facing South East



Plate: 5 06E 214, Brenanstown, Site 3A, General site shot,
Facing North East



Plate:6 06E 214, Brenanstown, Site 3A, Post pit with packing
stones, Facing North



Plate: 7 06E 214, Brenanstown, Site 3B, Possible pits and postholes, Prehistoric settlement evidence? facing South East.



Plate: 8 06E 214, Brenanstown, Site 3B, General site shot, Prehistoric settlement evidence? facing South West.



Plate: 9 06E 214, Brenanstown, Site 3B, F404, Small pit with flint core, Prehistoric settlement evidence? facing East.