

**N18 Ennis Bypass  
and N85 Western Relief Road**

**Site AR120, Clareabbey, Co. Clare**

**Final Archaeological Excavation Report  
for Clare County Council**

**Licence No: 04E0027**

**by Kate Taylor**

**Job J04/02**

**(NGR 134970 175435)**

**14<sup>th</sup> August 2006**

**N18 Ennis Bypass and N85 Western Relief Road  
Site AR120, Clareabbey, Co. Clare**

**Final Archaeological Excavation Report**

**for Clare County Council**

**Licence No: 04E0027**

**by Kate Taylor  
TVAS Ireland Ltd**

**Job J04/02**

**14<sup>th</sup> August 2006**



## Summary

**Site name:** N18 Ennis Bypass and N85 Western Relief Road, Site AR120, Clareabbey, Co. Clare

**Townland:** Clareabbey

**Parish:** Clareabbey

**Barony:** Islands

**County:** Clare

**SMR/RMP Number:** N/A

**Planning Ref. No:** N/A

**Client:** Clare County Council, New Road, Ennis, Co. Clare

**Landowner:** Clare County Council, New Road, Ennis, Co. Clare

**Grid reference:** 134970 175435 (OSI Discovery Series, 1:50,000, Sheet 58. OS 6" Clare Sheet 33)

**Naturally occurring geology:** Light grey clayey river silts overlying up to 0.6m of orangish brown peat

**TVAS Ireland Job No:** J04/02

**Licence No:** 04E0027

**Licence Holder:** Kate Taylor

**Report author:** Kate Taylor

**Site activity:** Excavation

**Site area:** 2034m<sup>2</sup>

**Sample percentage:** 100%

**Date of fieldwork:** 19<sup>th</sup> January to 4<sup>th</sup> February 2004

**Date of report:** 14<sup>th</sup> 2006

**Summary of results:** Three post-medieval brick-making kilns (clamps) were excavated adjacent to the River Fergus in the immediate vicinity of Clare Abbey

**Monuments identified:** Post-medieval brick clamps

**Location and reference of archive:** The primary records (written, drawn and photographic) are currently held at TVAS Ireland Ltd, Ahish, Ballinruan, Crusheen, Co. Clare.

*This report may be copied for bona fide research or planning purposes without the explicit permission of the copyright holder*

*Report edited/checked by: Graham Hull ✓14.08.2006*

**N18 Ennis Bypass and N85 Western Relief Road, Site AR120, Clareabbey, Co. Clare  
Final Archaeological Excavation Report**

By Kate Taylor

**Report J04/02m**

**Introduction**

This report documents the final results of an archaeological excavation of post-medieval brick-making kilns (clamps) (Site AR120) on the route of the N18 Ennis Bypass and N85 Western Relief Road at Clareabbey, Co. Clare (NGR 134970 175435) (Fig. 1). The excavation forms part of the Ennis Bypass Archaeological Contract 7.

A preliminary archaeological report for this site was produced in May 2004 (Taylor 2004).

The National Monuments Act 1930 (as amended) provides the legislative framework within which archaeological excavation can take place and the following government publications set out many of the procedures relating to planning/development and archaeology:

*Framework and Principles for the Protection of the Archaeological Heritage* (DAHGI 1999a)

*Policy and Guidelines on Archaeological Excavation* (DAHGI 1999b)

*Code of Practice between the National Roads Authority and the Minister for Arts, Heritage, Gaeltacht and the Islands* (NRA/MAHGI 2001).

**Project background**

As part of the National Roads Authority scheme for upgrading the N18 Limerick to Galway Road, Clare County Council, in consultation with NRA Project Archaeologist Sébastien Joubert, requested a series of archaeological investigations along the route of the proposed Ennis Bypass and a Western Relief Road. The proposed scheme has an overall length of 21km and involves the construction of a 13.8km eastern bypass of Ennis from Latoon, north of Newmarket-on-Fergus, to Cragard, north of Barefield. The Western Relief Road is 7.1km long and is to link Killow and Claureen (Fig. 1).

A number of sites of archaeological interest were known to lie on the route of the new roads and the mitigation strategy agreed by the Project Archaeologist and the national licensing authorities for these sites was preservation by record, i.e. full archaeological excavation. Further sites, without surface expression, were located as the result of intensive test trenching along the course of the road (03E1291 Hull 2003a and 03E1293 Roger 2004). As preservation *in situ* was not a reasonable option, the resolution strategy for these new sites was also preservation by record.

The archaeological excavation and post excavation work were funded by Clare County Council through the National Roads Authority and part-financed by the European Union under the National Development Plan 2000-2006.

**Location, topography and geology**

The site was located in the townland of Clareabbey, parish of Clareabbey, barony of Islands, approximately 2km south-east of Ennis town centre (the O'Connell Monument) and was centred on NGR 134970 175435 (Fig. 1). Clare Abbey stands 350m to the north-west.

The archaeological deposits were in a field that was adjacent to the west bank of the River Fergus and the site was bounded on the immediate east by a clay flood defence bund (Fig. 2). The site was in a pasture field that was flat, low-lying and slightly wet. The topsoil in the field was 0.05m thick and overlay 0.3m (at west) to 0.6m (at east) of light grey clayey river silts. These alluvial silts were shown to overlie up to 0.6m of orangish brown peat that had a high organic component. Beneath this more recently formed peat a dark brown compacted peat was observed. The older peat was at least 1m deep.

The natural geological deposits lay at approximately 1.5m above Ordnance datum (OD).

### **Archaeological background**

As part of the environmental assessment process for the road scheme, Clare County Council commissioned desk-based and walkover surveys that formed part of an Environmental Statement (Babtie Pettit 2000) and an archaeological study for the Environmental Impact Statement (Doyle 1999). A total of 36 sites of known or potential cultural heritage significance were identified along the entire route of the proposed Ennis Bypass and Western Relief Road.

Earthwork and geophysical survey were undertaken on potential archaeological sites and invasive testing and excavation took place in 2002 and 2003 on some of the above ground sites affected by the proposed road (Aegis 2002, IAC 2003, Geoquest 2002, Earthsound 2003).

A systematic programme of testing along the new road route, involving the mechanical excavation of a central linear trench with offsets, took place in Summer/Autumn 2003. Twenty-two previously unknown sites, including cremation cemeteries, burnt stone spreads, enclosures and brick clamps were found (03E1291 Hull 2003a and 03E1293 Roger 2004). Monuments dating from the Bronze Age to the modern period were found.

Earlier phases of archaeological intervention on newly constructed stretches of the N18 (Dromoland to Carrigoran), to the immediate south of this road project, have demonstrated that the locality has a rich range of prehistoric and later monuments (99E0350 Hull and Tarbett-Buckley 2001).

Recent archaeological work on the BGE Gas Pipeline to the West in the neighbourhood of the new road route has tended to support the picture of continuous human activity in Co. Clare from the Neolithic and even becoming intensive from the Bronze Age. A number of burnt stone spreads and burnt mounds were excavated near the route of the new road in the summer of 2002 (MGL 2002).

The centre-line with offset testing (03E1291 Hull 2003a) identified a series of linear brick structures adjacent to the River Fergus. These deposits were allocated the number AR120 and the excavation forms the subject of this report.

Burnt stone spreads and pit clusters, of prehistoric date, were also identified during testing and later excavated in neighbouring fields to the west as part of this road project (AR121 04E0031 Taylor 2006a, AR122 04E0032 Taylor 2006b; AR123 04E0019 Hull 2006a; AR124 04E0022 Hull 2006b and AR125 04E0023 Hull 2006c).

Medieval and post-medieval features and deposits associated with Clare Abbey were excavated 300m to the north-west as part of this road project (Hull 2006 d and e).

Underwater survey of the River Fergus for the crossing of the Gas Pipeline to the West discovered a submerged log-boat that was perhaps associated with the medieval abbey (Kieran 2002). The logboat was found approximately 700m to the south of Site AR120.

Clare Abbey itself was founded in 1189 by Domnall Mór, the chosen site possibly influenced by a perceived sanctity attached to the site (Westropp 1900a).

A particularly bloody episode in the history of the abbey, ‘the carnage of Clare’ (Power 2004), relates to a 1278 battle of the O’Brien civil wars involving the abbey and its surrounds (CL033-121). Documentary evidence notes additions to the original structure in the 1300’s, repairs and additions in 1434 (Gwynn and Gleeson 1962), and more repairs carried out in 1461 (Westropp 1900a).

The value of the abbey was placed at 2 marks in the 1302-06 taxation, but the stature and wealth of the abbey increased dramatically during the fourteenth century. Control of Clare Abbey swung between the MacCraith and O’Brien families throughout this period with the O’Briens taking control during the late fifteenth/early sixteenth century (Gwynn & Gleeson 1962). The abbey was dissolved in 1543 by Henry VIII and the site and possessions were granted to the O’Brien descendants of Domnall Mór, the Earl of Thomond and the Baron of Inchiquin (Power 2004).

It is assumed that religious activity stopped following dissolution and as Westropp (1900b) notes, Clare Abbey does not seem to have been adopted as a parish church as were other abbeys in the area. There are however references to ‘abbots and priests of Clare’ (Westropp 1900a) in later periods and it is thought that the monks remained in Clare Abbey up to 1650 (Westropp 1900b). Thomas Dyneley’s 1681 sketch shows that the kitchen had been converted into a house and also depicts a small chapel adjoined to the abbey supporting the notion that religious activity continued up to the later seventeenth century. It may be that the post-medieval agricultural and brick manufacturing activity excavated as AR120 also dates to this period and may be connected with the abbey. The discontinuation of religious activity and general decline of the abbey is supported by a 1793 sketch engraved by Pelham that depicts the kitchen/house as unroofed and the chapel as absent.

The lease of the abbey and townland of Clare Abbey changed hands numerous times in the centuries following the 1543 dissolution (Power 2004). The decline in importance of the abbey coincides with an increase in activity, particularly of a military nature, at Clare castle in the 17<sup>th</sup> century involving the Cromwellian and Williamite disturbances, followed by a continuous British presence up to the end of the nineteenth century (Power 2004).

### **Excavation aims and methodology**

A licence to excavate was granted to Kate Taylor by the National Monuments Section of the Department of the Environment, Heritage and Local Government, in consultation with the National Museum of Ireland, on behalf of the Minister for the Environment, Heritage and Local Government. The licence number is 04E0027.

The aims of the excavation were to:

- 1) Preserve by record all archaeological deposits and features within the excavation area
- 2) Produce a high quality report of the findings

The fieldwork took place between 19<sup>th</sup> January and 4<sup>th</sup> February 2004 and was directed by Kate Taylor, supervised by Astrid Lesley Nathan and assisted by Tim Dean, Elisabeth Dos Santos, Matthew Logue and Jamie Parra Rizo.

The excavation area was rectangular, centred on the brick deposits seen during testing and examined 2034m<sup>2</sup>. Topsoil and overburden were removed by a 15 tonne, 360°, tracked machine, operated under direct and continuous archaeological supervision. The spoil was visually scanned for artefacts.

A full written, drawn and photographic record was made following procedures outlined in the TVAS Ireland Field Recording Manual (First Edition 2003).

## **Excavation results** (Figs 3 to 4 and Plates 1 to 4)

Three principle areas of brick-making activity were identified and these are described as Clamps A, B and C (Fig. 3). A complete context list is given as Appendix 1.

Brick clamps are brick-making kilns. The three examples at Site AR120 were located on top of alluvium and were sealed by a deposit of broken brick rubble and topsoil 0.05m thick.

The northernmost brick clamp (C) had three phases of use and Clamps A and B were used only once. Both Clamps B and C were cut by the back-drain flanking the River Fergus flood bund to the east. The bund and, presumably, the back drain were in existence before 1840 (1<sup>st</sup> Edition Ordnance Survey).

The southernmost clamp (A) was the best preserved.

### *Clamp A*

Brick clamp A was composed of 6 rows (benches) of unmortared brick orientated from north-north-east to south-south-west. The benches were 4.5m to 4.7m long, 0.35m to 0.45m wide and two or three bricks high. Between the benches were deposits of black burnt peat that had a maximum thickness of 0.08m (Plates 2 and 3).

Brick-made air vents were seen at the ends of the fuel rows (Fig. 4).

### *Clamp B*

This structure was formed by 10 rows of brick benches, each typically 5.5m to 6m long, 0.5m wide and orientated from north-north-east to south-south-west (Plate 1). Burnt peat was evident between the benches.

### *Clamp C*

This clamp demonstrated evidence of three phases of brick-making at the same location. Initially, the natural clay had been dug out to a depth of 0.2m to produce 5 slots, each 0.4m wide and 6m long and orientated from north-north-east to south-south-west (Plate 4). These slots were filled with black burnt peat and presumably served to hold fuel for the earliest brick clamp. Later, a deposit of broken brick fragments and redeposited natural clay sealed and leveled this clamp and then two more brick kilns were built on top.

These later kilns were located next to each other although they were not necessarily contemporary. The western kiln was 6m long and 5.8m wide and had 6 brick benches. The eastern kiln was 6m long and 4.2m wide. The benches of both kilns were 0.30m to 0.45m wide and orientated from north-north-east to south-south-west.

## **Finds**

Three whole bricks were recovered as representative samples (Appendix 2). These bricks were taken from Clamp A context 16. The bricks have been allocated the finds numbers 04E0027:1-3.

The finds have been cleaned, numbered, labelled, properly packed and will be deposited with the National Museum of Ireland in accordance with *Advice Notes for Excavators* (NMI 1997).

## **Brick by Kate Taylor**

The bricks are hand-made, unfrosted and are an orangish red colour (terracotta) and many had impressions of grass. Some of the bricks on site were burnt and were a greyish brown colour. Two of the red bricks and one of the burnt bricks were retained.

The bricks were uneven and varied in size from 9" by 4" by 2½" (227mm by 100mm by 65mm) to 9¼" by 4¼" by 2¾" (235mm by 110mm by 70mm). The retained bricks weighed 2619gm, 2746gm and 2981gm.

## **Samples**

A bulk soil sample of the burnt material found in the spaces between the rows in Clamp A was taken (Appendix 3). This sample has been floated and then wet sieved through 300micron and then 2mm sieves in order to recover charred plant remains and small finds. Large chunks of partially burnt peat were recovered.

## **Charred plant macrofossils and other remains by Val Fryer**

### *Introduction*

A single sample for the extraction of the plant macrofossil assemblage was taken from Clamp A, which was the most complete of the three structures.

### *Methodology*

The sample was floated and wet sieved by TVAS Ireland Ltd, and the flot was collected in a 300 micron mesh sieve. The dried flot was scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed below on Table 1. Nomenclature within the table follows Stace (1997). All plant remains were charred. The density of material within the assemblage is expressed in the table as follows: xx = 10 – 100 specimens and xxx = 100+ specimens.

### *Results*

#### Plant macrofossils

Small fragments of heavily burnt peat were abundant within the assemblage along with numerous fragments of charred root or stem. Although most of the latter were not closely identifiable, heather (Ericaceae) stem fragments were recorded at a moderate density.

#### Other remains

As expected with a brick clamp, pieces of fired clay were common.

**Table 1: Charred plant macrofossils and other remains**

<b>Sample No</b>	1
<b>Deposit No</b>	17
Charred root/stem	xxx
Ericaceae indet. (stem)	xx
Burnt peat	xxx
Fired clay	xx
Sample volume (litres)	10
Volume of flot (litres)	1
% flot sorted	12.5%

*Conclusions*

As with a further brick clamp excavated at Manusmore (AR101 04E0188, Hull 2006d) as part of the Ennis Bypass scheme, peat would appear to have been the principal fuel used for brick production, presumably because of its local availability.

**Charcoal** by Simon Gannon*Introduction*

A single sample of charcoal fragments was retrieved from one context from the site.

*Methodology*

In sorting fragments suitable for identification a guide size of at least 2mm in radial cross-section was used. No identifications were made.

*Analysis Results*

No identifications were made.

**Discussion**

The excavation of Site AR120, Clareabbey, Co. Clare has produced evidence of semi-industrial brick manufacture that most probably pre-dates 1840.

A brick clamp (or temporary kiln) is a rectangular construction for firing bricks. The ‘green’ bricks are stacked on the ground in rows (‘benches’) and alternate header and stretcher layers built up to form an externally battered structure. The gaps between the lower rows of bricks are filled with fuel (in this case probably peat) and ignited. These gaps would have facilitated a through draught. The clamp was most likely turf covered and the slow firing of the bricks would generate large amounts of white smoke. The clamp would have burned for a number of days before the finished bricks could be taken down ready for use. An average sized example might have been stacked up to 5m high and produced 20,000 to 30,000 bricks (Rynne 1999, Palmer and Neaverson 1998, Drury 1981, Dobson 1971, Goldthwaite 1980). The post-medieval production of brick was accelerated by shortages of structural timbers (Palmer and Neaverson 1998, 44) and the simple form of clamp may pre-date the mechanised production of bricks in the mid-19<sup>th</sup> century.

Examples of brick clamps have been found in similar clay rich locations and have been excavated under archaeological conditions in recent years. A similar, but poorly preserved example, was found on clay adjacent to the River Ardsollus in the vicinity of Manusmore as part of this road project

(AR101 04E0188, Hull 2006f). Other examples of these semi-industrial manufactories have been excavated as part of BGE Gas Pipeline to the West (Dollas Upper, Co. Limerick, 02E0557, Hull 2003b) and on the alluvial flood plain of the River Shannon (A005/2010 and A005/2018, Reilly 2006a and 2006b).

The brick-making activity at Clareabbey seems to have been semi-industrial rather than for making bricks for a single local use. The example at Manusmore was, for instance, likely to have been specifically built to provide bricks for the nearby 'big house' (AR101 04E0188, Hull 2006f).

Brick making requires two bulky raw materials – clay and fuel. On the flood plain of the River Fergus both are plentiful. Finished bricks are also bulky and are low value and would be suited to water transport. Once at Clarecastle, only 1.5km to the south, there would then be easy access to the wider world. Perhaps it is significant that many buildings in Clarecastle, and even Limerick, are brick-built. Further documentary research may provide evidence of a previously neglected Clare industry. It has also been previously thought that brick was being brought into Clarecastle as ballast (J. Power *pers. comm.*).

A radiocarbon date was not thought to be appropriate. Firstly, the material that a date might come from is peat and would therefore, produce an unacceptably wide tolerance. Secondly the archaeological site is relatively modern and is better dated with reference to historical documents.

### **Archaeological potential off the road CPO**

The archaeological potential outside the road CPO is likely to be high as other likely brick clamps were indicated by low earthworks to the immediate north of the new road and brick fragments were observed in the fields to the south and east of Clare Abbey. The potential for archaeological deposits associated with the medieval abbey must also be considered.

### **Publication plan**

A summary of the findings of the excavation has been submitted to *Excavations 2004*.

Copies of this final excavation report will be deposited with the Clare County Museum and the Local Studies Library, Ennis, Co. Clare

A summary article, describing the findings of this road project has been published in the local journal *The Other Clare* (Hull and Taylor 2005).

An illustrated information brochure describing the findings of this road project has been published by Clare County Council.

An article in *Archaeology Ireland* illustrating the characteristics of the components of relict industrial landscapes has been published (Hull 2005). The site in Clareabbey, as well as others in Clare and Limerick is described.

The stated aim of the National Roads Authority with regard to archaeological publication is clear, (O'Sullivan 2003) and it is anticipated that the results of this excavation will be disseminated as a component of a monograph dedicated to the archaeology of the Ennis Bypass. Publication is expected to take place in 2006/7 at the latest.

---

Kate Taylor MIAI MIFA  
TVAS Ireland Ltd  
14<sup>th</sup> August 2006

## References

- Aegis, 2002, F Coyne and T Collins, Archaeological test trenching investigations report, unpublished report
- Babtie Pettit Ltd, 2000, N18 Road Improvements Dromoland to Crusheen (including the Ennis Bypass), Environmental Impact Statement
- DAHGI, 1999a, *Framework and Principles for the Protection of the Archaeological Heritage*, Department of Arts, Heritage, Gaeltacht and the Islands, Govt. of Ireland, Stationary Office, Dublin
- DAHGI, 1999b, *Policy and Guidelines on Archaeological Excavation*, Department of Arts, Heritage, Gaeltacht and the Islands, Govt. of Ireland, Stationary Office, Dublin
- Dobson, E, 1971, A Rudimentary Treatise on the Manufacture of Brick and Tiles. Originally printed 1850, John Weale, London. Reprinted in *Journal of Ceramic History* 5, ed, F Celoria, George Street Press, Stafford
- Drury, P J, 1981, The production of brick and tile in medieval England, in D.W.Crossley (ed), *Medieval Industry*, CBA Research Report, 40, 126-42
- Doyle, S, 1999, Archaeological study for EIS of proposed N18 Road Development, Dromoland to Crusheen (Ennis Bypass), Co. Clare, Archaeological Development Services report
- Earthsound, 2003, J Bonsall, Archaeological geophysical survey of AR22, unpublished report
- Geoquest, 2002, M J Noel, Geophysical survey of areas on the route of the proposed N18, unpublished report
- Goldthwaite, R, 1980, *The Building of Renaissance Florence: An Economic and Social History*, Johns Hopkins University, Baltimore
- Gwynn, Rev. A G & Gleeson, D F, 1962, 'The Monastic Houses in the Fifteenth Century', in *A History of the Diocese of Killaloe*, M H Gill and Son Ltd, Dublin, 452-457
- Hull, G, 2003a, 03E1291, N18 Ennis Bypass Archaeological Test Excavations, Contract 4, Central Linear Trench with Offsets (Southern and Western Sections), Final Archaeological Assessment Report, TVAS Ireland report J03/12b
- Hull, G, 2003b, BGE Gas Pipeline to the West, Dollas Upper, Co. Limerick, 02E0557, unpublished Final Archaeological report, Margaret Gowen and Co Ltd
- Hull, G, 2005, 'Brick Kilns', *Archaeology Ireland*, **Vol 19, No 4, Issue 74**, 31-3, Wordwell, Bray
- Hull, G, 2006a, 04E0019, Site AR123, Clareabbey, Co. Clare, N18 Ennis Bypass and N85 Western Relief Road, unpublished Final Archaeological report, TVAS Ireland report 04/02p
- Hull, G, 2006b, 04E0022, Site AR124, Clareabbey, Co. Clare, N18 Ennis Bypass and N85 Western Relief Road, unpublished Final Archaeological report, TVAS Ireland report 04/02q
- Hull, G, 2006c, 04E0023, Site AR125, Clareabbey, Co. Clare, N18 Ennis Bypass and N85 Western Relief Road, unpublished Final Archaeological report, TVAS Ireland report 04/02r

- Hull, G, 2006d, N18 Ennis Bypass and N85 Western Relief Road, Clare Abbey, Co. Clare, C020, preliminary archaeological report, unpublished TVAS (Ireland) Ltd report J04/01z
- Hull, G, 2006e, N18 Ennis Bypass and N85 Western Relief Road, Clare Abbey, Co. Clare, A025/001, preliminary archaeological report, unpublished TVAS (Ireland) Ltd report J04/01y
- Hull, G, 2006f, 04E0188, Site AR101, Manusmore, Co. Clare, N18 Ennis Bypass and N85 Western Relief Road, unpublished Final Archaeological report, TVAS Ireland report 04/01n
- Hull, G and Tarbett-Buckley, C, 2001, Archaeological Monitoring and Excavation, N18/N19 Road Improvement Scheme, Ballycasey – Dromoland, Contract 1, 99E0350, unpublished report, Valerie J Keeley Ltd
- Hull, G and Taylor, K, 2005, 'Archaeology on the route of the Ennis Bypass', *The Other Clare*, Vol 29, 35-41, Shannon Archaeological and Historical Society
- IAC, 2003, E Connolly and D Nelis, Report on archaeological testing on the N18 Ennis Bypass, unpublished preliminary report
- Kieron, E, 2002, Underwater archaeological survey of River Fergus at Clareabbey/Skehanagh, Co. Clare, 02D130/02R200, unpublished report for Margaret Gowen and Co. Ltd
- MGL, 2002, Gas Pipeline to the West, Section 3, Archaeological Excavations, unpublished final reports, Margaret Gowen & Co, Ltd, Glenageary, Co. Dublin
- NMI, 1997, Advice Notes for Excavators, unpublished guidelines, National Museum of Ireland, Dublin
- NRA/MAHGI, 2001, *Code of Practice between the National Roads Authority and the Minister for Arts, Heritage, Gaeltacht and the Islands*
- O'Sullivan, J (ed), 2003, *Archaeology and the National Roads Authority*, NRA, Dublin
- Palmer, M, and Neaverson, P, 1998 *Industrial Archaeology: Principles and Practice*, Routledge, London
- Power, J, 2004, *A History of Clare Castle and its Environs*, Joseph Power, Ennis
- Reilly, F, 2006a, A005/2010, Coonagh West, Co. Limerick, unpublished Preliminary Archaeological report, TVAS Ireland report J04/20
- Reilly, F, 2006b, A005/2018, Coonagh West, Co. Limerick, unpublished Preliminary Archaeological report, TVAS Ireland report J04/20
- Roger, T, 2004, 03E1293, N18 Ennis Bypass Archaeological Test Excavations, Contract 3, Central Linear Trench with Offsets (Northern Section), Moore Group Ltd, Draft Preliminary Archaeological Assessment Report
- Rynne, C, 1999, *The industrial archaeology of Cork City and its environs*, Stationery Office, Dublin
- Taylor, K, 2004, Site AR120, 04E0027, Clareabbey, Co. Clare, N18 Ennis Bypass, unpublished Preliminary Archaeological report, TVAS Ireland report 04/02a
- Taylor, K, 2006a, 04E0031, Site AR121, Clareabbey, Co. Clare, N18 Ennis Bypass and N85 Western Relief Road, unpublished Final Archaeological report, TVAS Ireland report 04/02n

Taylor, K, 2006b, 04E0032, Site AR122, Clareabbey, Co. Clare, N18 Ennis Bypass and N85 Western Relief Road, unpublished Final Archaeological report, TVAS Ireland report 04/02o

Stace, C, 1997, *New Flora of the British Isles*, Second edition, Cambridge University Press

Westropp, T J, 1900a, 'The Augustinian Houses of County Clare: Clare, Killone and Inchicronan', *Journal of the Royal Society of Antiquaries of Ireland*, **30**, 118-135

Westropp, T J, 1900b, 'The Churches of County Clare', *Proceedings of the Royal Irish Academy*, **Third Series, Vol. VI, No.1**, 100-176

**Appendix 1: Catalogue of features and deposits**

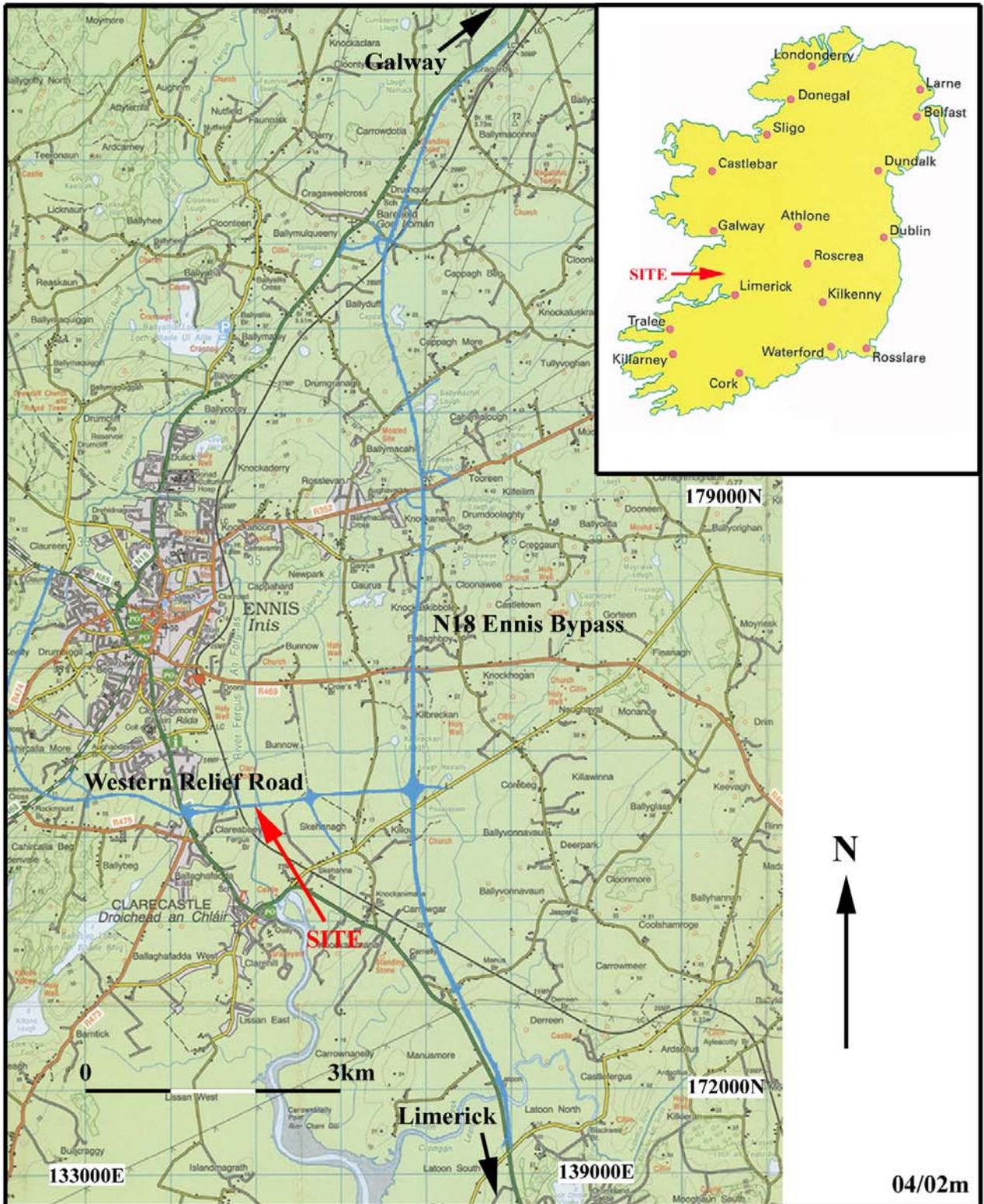
<b>Context No.</b>	<b>Clamp</b>	<b>Description</b>	<b>Sample No.</b>	<b>Findings</b>
1	ABC	Topsoil	-	-
2	ABC	Natural alluvium	-	-
3	C	Layer of broken brick	-	-
4	C	Redeposited alluvium	-	-
5	C	Layer of broken brick	-	-
6	C	Cut trenches between benches	-	-
7	C	Charred material	-	-
8	C	Charred material	-	-
9	C	Layer of broken brick	-	-
10	C	Layer of broken brick	-	-
11	C	Brick benches	-	-
12	C	Mixed broken brick and clay used to block flues	-	-
13	B	Layer of broken brick	-	-
14	B	Charred material	-	-
15	B	Brick benches	-	-
16	A	Brick benches	-	1-3: bricks
17	A	Charred material	1	-
18	A	Brick rubble	-	-
19	A	Air vent	-	-
20	A	Brick rubble	-	-

**Appendix 2: Catalogue of finds**

<b>Find No</b>	<b>Cut</b>	<b>Deposit</b>	<b>Sample</b>	<b>Category</b>	<b>Description</b>	<b>No pieces</b>	<b>Weight (g)</b>
1	-	16		Brick	Red brick- whole-w/grass impression	1	2746
2	-	16		Brick	Red brick- whole-w/grass impression	1	2619
3	-	16		Brick	Red brick- whole- darkened/cracking	1	2981

**Appendix 3: Catalogue of samples**

<b>Sample No</b>	<b>Cut</b>	<b>Deposit</b>	<b>Volume sieved (L)</b>	<b>Volume floated (L)</b>	<b>Finds?</b>	<b>Charred plant remains?</b>
1	-	17	10	10	N	Y



**N18 Ennis Bypass, Site AR120,  
Clareabbey, Co. Clare  
04E0027**

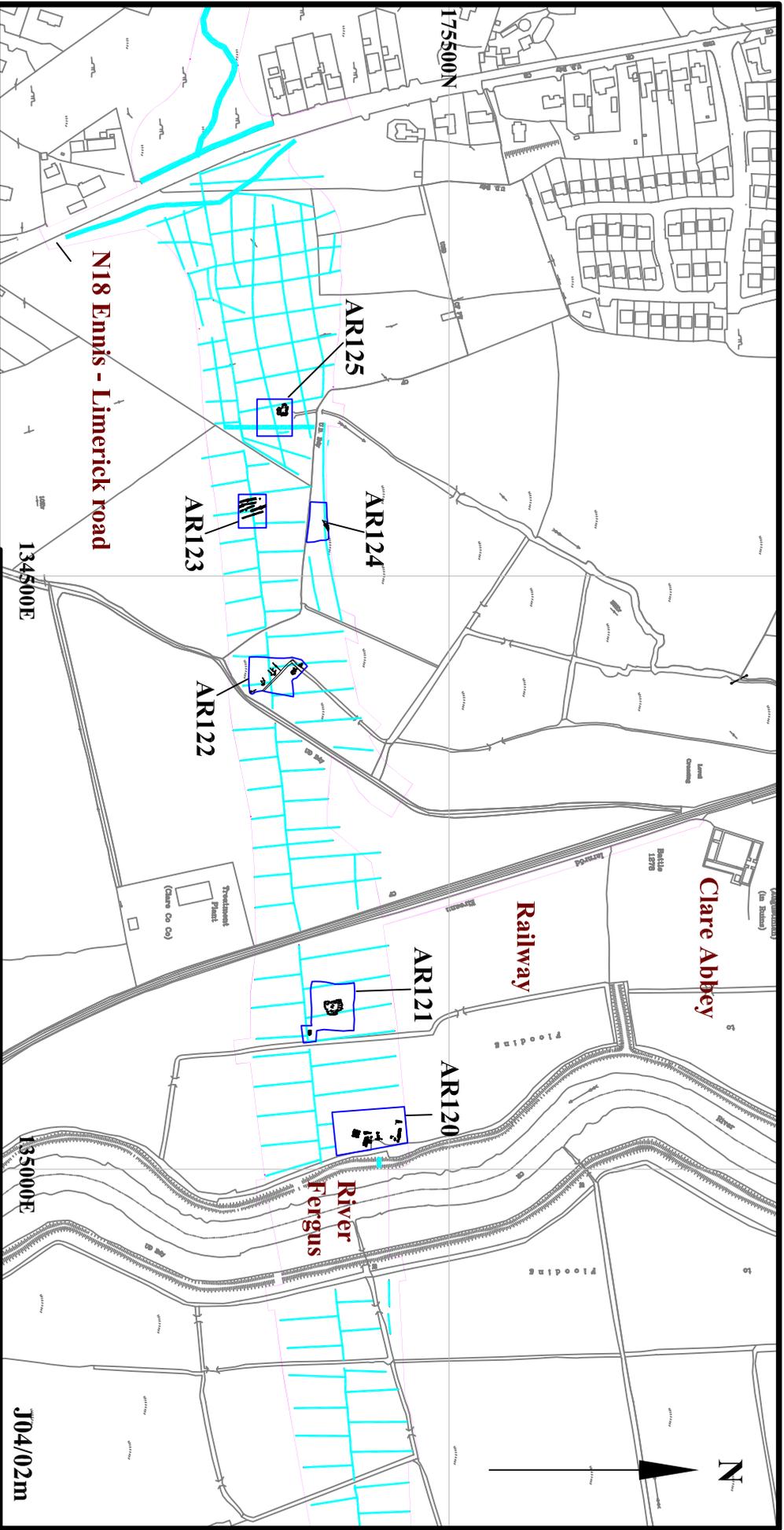
**Figure 1: Site location**

Reproduced from Ordnance Survey Discovery Series 1:50000

1st Edition 1996. Sheet 58

OSI Licence: AR0049406 Copyright OSI & Govt. of Ireland

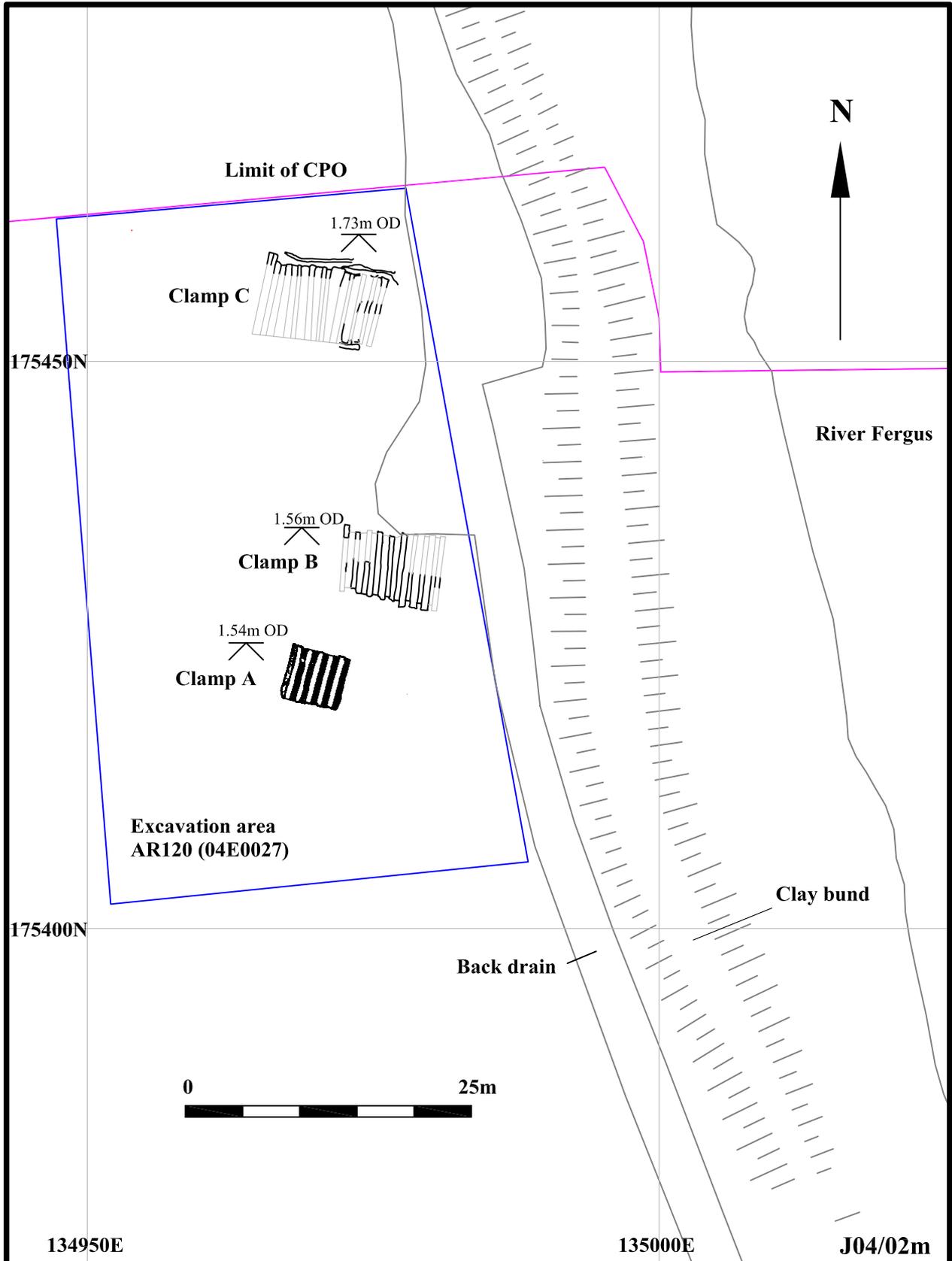
T V A S  
I R E L A N D  
L T D



N18 Ennis Bypass, Site AR120, Clareabhey, Co. Clare  
 04E0027

**Figure 2: Site location within local landscape.  
 Showing test trenches (03E1291)**

Scale 1:5000. OSI Licence: AR0049406  
 Copyright OSI & Govt. of Ireland



N18 Ennis Bypass, Site AR120, Clareabbey, Co. Clare

04E0027

Figure 3: Site plan

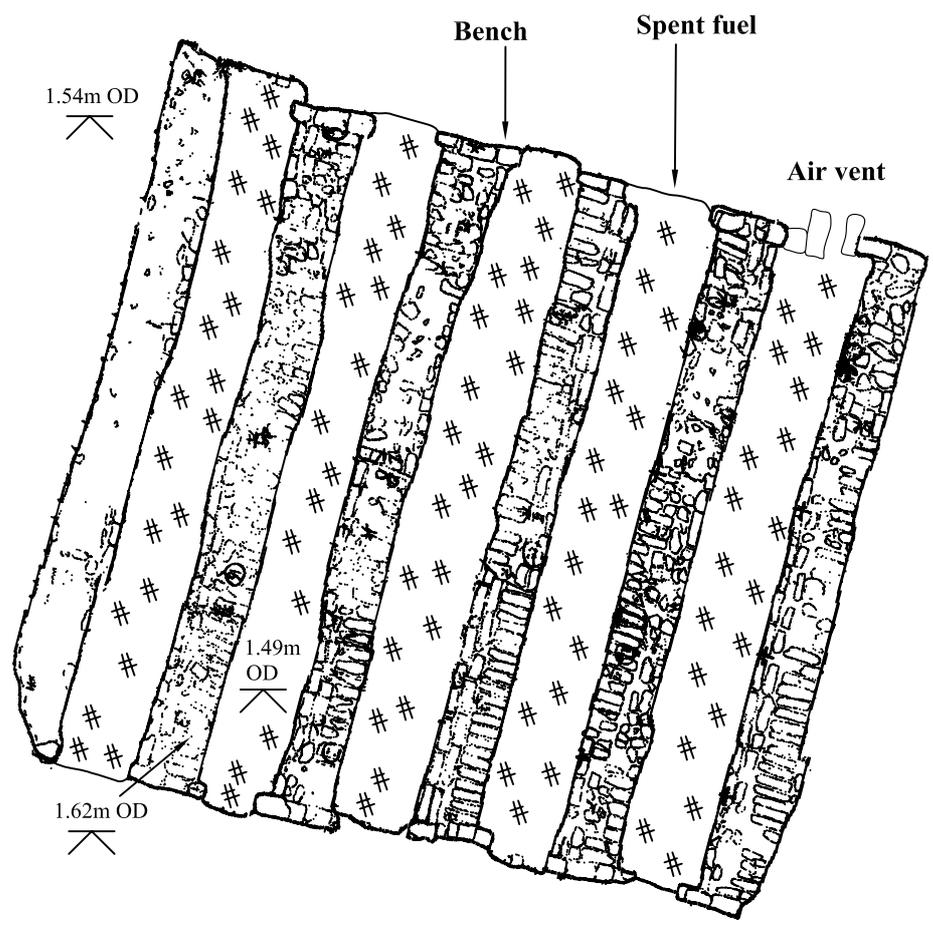
Scale 1:500. OSI Licence: AR0049406  
 Copyright OSI & Govt. of Ireland





175426N

175419N



134966E

134973E  
J04/02m

N18 Ennis Bypass, Site AR120, Clareabbey, Co. Clare

04E0027

Figure 4: Plan detail of brick clamp A

Scale 1:50





**Plate 1. Site AR120 pre-excavation. Looking east. Clamp B**



**Plate 2. Brick benches with burnt fuel between.  
Looking north-east. scale 1m. Clamp A**

04E0027



**Plate 3. Brick benches. Looking north-east. Scale 1m. Clamp A**



**Plate 4. Clay ridges beneath brick debris. Looking south. Scales 1m and 0.3m. Earliest phase Clamp C**