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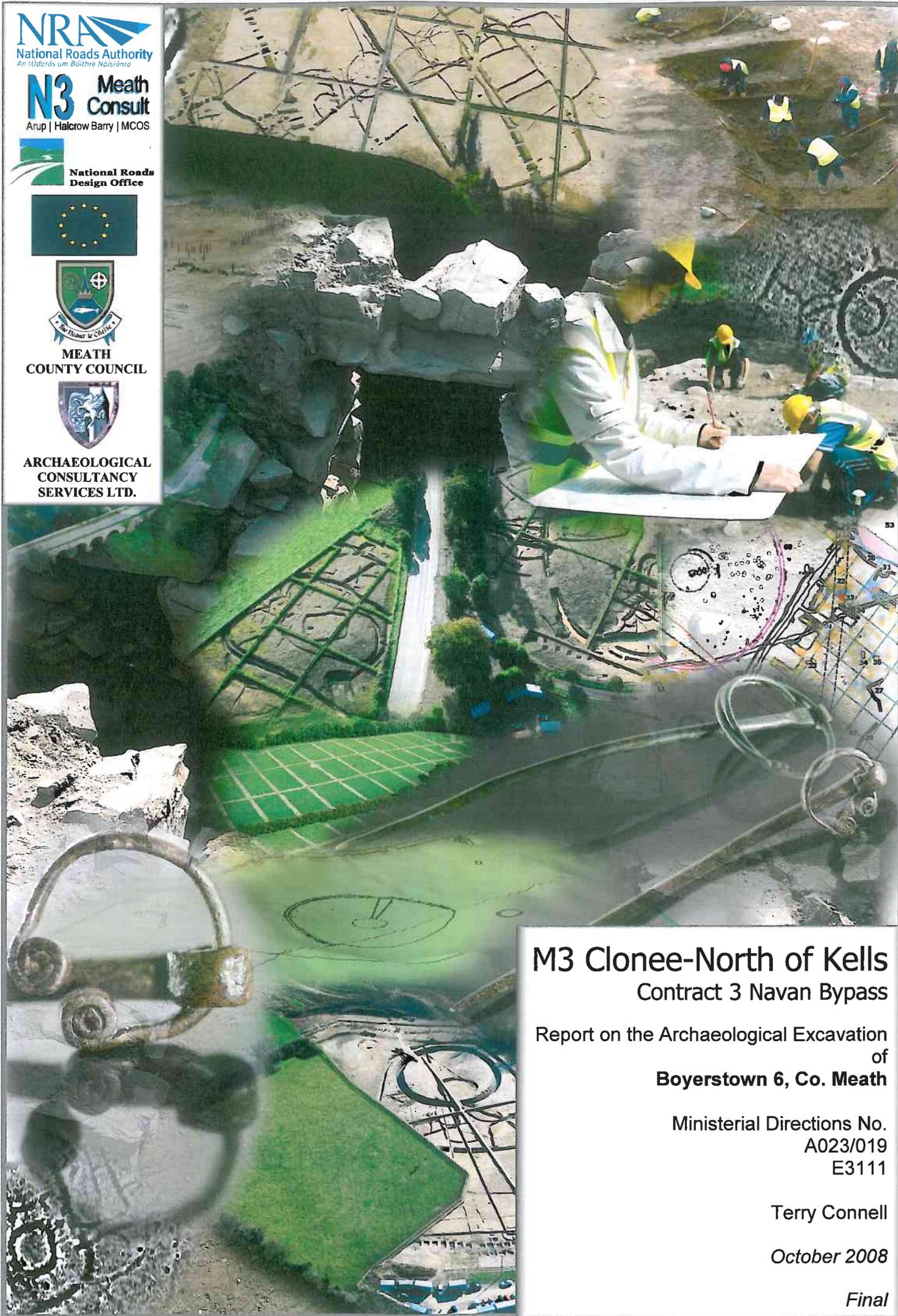
National Roads Design Office



MEATH COUNTY COUNCIL



ARCHAEOLOGICAL CONSULTANCY SERVICES LTD.



M3 Clonee-North of Kells Contract 3 Navan Bypass

Report on the Archaeological Excavation
of
Boyerstown 6, Co. Meath

Ministerial Directions No.
A023/019
E3111

Terry Connell

October 2008

Final

.PROJECT DETAILS

Project	M3 Clonee–Kells Motorway
Site Name	Boyerstown 6
Ministerial Direction Number	A023/019
Registration Number	E3111
Senior Archaeological Consultant	Donald Murphy
Site Director	Terry Connell
Excavated	19 – 23 March 2007
Client	Meath County Council, National Roads Design Office, Navan Enterprise Centre, Navan, County Meath
Townland	Boyerstown
Parish	Ardraccan
County	Meath
National Grid Reference	283226 266118
Chainage	45700–46900
Height	70.16m OD
Report Type	Final
Report Status	Submitted
Date of Report	October 2008
Report by	Terry Connell

ACKNOWLEDGEMENTS

This report has been prepared by Archaeological Consultancy Services Ltd on behalf of Meath County Council National Roads Design Office (NRDO) and the National Roads Authority (NRA). The excavation was carried out under Ministerial Directions issued by the Department of the Environment, Heritage and Local Government (DOEHLG) in consultation with the National Museum of Ireland (NMI).

Consulting Engineers - N3 Meath Consult

Engineer – Peter Thorne and Thomas Meagher

Engineer's Representative – Mary O'Rourke

Meath County Council, National Roads Design Office

Senior Engineer – John McGrath

Project Archaeologist – Mary Deevy

Project Liaison Officer – Ambrose Clarke

National Monuments, Department of the Environment, Heritage and Local Government

Archaeologist – Martin Reid

Irish Antiquities Division, National Museum of Ireland

Keeper – Nessa O'Connor

NON-TECHNICAL SUMMARY

This site at Boyerstown 6 was excavated by Archaeological Consultancy Services Ltd (ACS) as part of the M3 Clonee–North of Kells Motorway Scheme on behalf of Meath County Council NRDO and the NRA. The excavation was carried out between 19 and 23 March 2007 under Ministerial Direction Number A023/0019 issued by DOEHLG in consultation with the NMI. The site at Boyerstown 6 incorporated the remains of two ditches that upon excavation turned out to be modern. Two pits were also noted on the site; however, upon excavation these turned out to be prehistoric tree boles. There were also some evenly spread linear features, but these were cultivation marks.

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1 INTRODUCTION

The site at Boyerstown 6 (Figures 1–6) was identified during advance testing carried out by Neil Fairburn during April 2004 under licence number 04E0581 (Fairburn 2004). The advance testing revealed the presence of two shallow circular pits that measured 1.5m and 3m in diameter and were filled with a small quantity of charcoal and burnt stone. Full resolution of the site occurred in March 2007 and identified these pits as tree boles, as well as two modern field drains.

1.1 Development

Meath County Council and the National Roads Authority are constructing 49km of two-lane, dual-carriageway motorway between Clonee and Kells and 10km of single carriageway from Kells to Carnross, north of Kells, along with additional road upgrades, realignments and associated ancillary works. For the purposes of the Environmental Impact Assessment and the subsequent archaeological investigations the scheme was subdivided into five separate sections as follows: Clonee to Dunshaughlin (Contract 1), Dunshaughlin–Navan (Contract 2), the Navan Bypass (Contract 3) Navan to Kells (Contract 4) and and Kells to North of Kells (Contract 5). This section of the scheme (Contract 3) represents the Navan By-pass (287968 263697 to 282063 268835).

The archaeological components of the Environmental Impact Statement published in 2002 where carried out by Valerie J. Keeley Ltd (VJK) and Margaret Gowen and Co. Ltd (MGL) in 2000–2001. This included desk-based studies and field surveys of each section (VJK Sections 1 & 3 and MGL Sections 2, 4 & 5). Additionally on behalf of MGL geophysical survey was undertaken on the Dunshaughlin–Navan section and at Nugentstown on the Navan–Kells section by GSB Prospection (2000 & 2001). These studies carried out as part of the Environmental Impact Assessment were augmented by further geophysical survey conducted by Bartlett-Clark Consultancy on the remainder of the scheme (2002). Archaeological testing was completed by ACS and Irish Archaeological Consultancy Ltd (IAC) in 2004 (ACS Sections 1–3 and IAC Sections 4–5). Excavation of the sites identified during testing was conducted by ACS and IAC between 2005 and 2008 (ACS Sections 1–3 & 5 and IAC Section 4).

2 EXCAVATION

Excavation occurred between 19 and 23 March 2007 under Ministerial Direction Number A023/019 issued to Meath County Council NRDO. The work was carried out by Terry

Connell on behalf of ACS. The topsoil (F14: 0.15–0.20m depth) was removed by a machine equipped with a grading bucket. F15 represented the subsoil.

All archaeological features exposed were recorded and excavated by hand using the single context method. Each feature was assigned a context number. Where appropriate, samples were retrieved in an attempt to obtain evidence for the date and function of these features (Appendix 3). Unless otherwise stated, the features have been measured length-width-depth. All measurements are in metres. All finds were numbered according to the requirements of the National Museum of Ireland from 1 onwards consistent with licence and feature number. All radiocarbon dates are quoted in calibrated form to two sigma.

2.1 Results

Twelve contexts (Figures 7–8; Plate 1) were identified within the excavation area. Further details are located in Appendix 1.

Tree boles

Two tree bole features (F12 and F13) were excavated: the first (F13: 4.32m x 3.35m x 0.17m) contained, F7, F8 and F9, all of which were organic peat-based clays. This feature was interpreted as a tree bole. Charcoal (9g) was recovered from F8. This charcoal was identified as alder (ASDU; Appendix 5) and was radiocarbon dated to 1609–1428 BC (Beta 241320; Appendix 4), indicating a prehistoric presence in the area. Uncharred seeds were also recovered from F8 and consisted of thistle, blinks and buttercups (ASDU; Appendix 4). F12 (0.86m x 0.82m x 0.23m) contained the fill F6, also organic peat-based clay along with 4g of charcoal, and was deemed to be the result of root activity. A number of small linear features that crossed the site disappeared when cleaned and were therefore dismissed as non-archaeological features.

Ditch 1

F10 (40m x 1.10m x 0.40m) ran in a northwest–southeast direction across the site, cut the ditch F11 and contained grey sandy clay (F4). This fill, F4, contained two pieces of modern pottery. This ditch appears to have served as a modern drainage ditch and was therefore not of archaeological significance.

Ditch 2

F11 (25.65m x 1.10m x 0.24m) ran in a northeast–southwest direction across the site, therefore transecting F10, and contained grey sandy clay (F5). This fill, F5, contained a piece

of a modern ceramic drainage pipe; therefore, it is assumed that this ditch served as a modern drain and consequently was of no archaeological significance.

2.2 Finds

Excavation revealed few finds: two pieces of modern pottery were located within the fill F4 (of F10) (A023/019:4:1 and A023/019:4:2) and a piece of ceramic drainage pipe was located in F5 (of F11) (A023/019:5:1).

3 DISCUSSION

All the features identified within this site were either modern (ditches-F10 and F11) or natural features (tree boles-F12 and F13). There was no evidence for in situ burning within the tree boles and the material was likely to have been dumped there from activity which occurred off site, outside the landtake. Charcoal recovered from one of the tree boles (F13) was identified as alder and was dated to the Middle Bronze Age (1609–1428 BC, Beta 241320; Appendix 4). Uncharred seeds were also recovered from this feature and were identified as thistle, blinks and buttercup. These seeds would suggest a nearby open meadow with blinks and buttercups whilst the blinks and alder favoured wet conditions which would suggest that damp conditions occurred locally (ASDU; Appendix 5).

4 CONCLUSIONS

Boyerstown 6 (A023/019) was excavated from 19–23 March 2007 by Terry Connell (ACS) as part of the M3 Clonee–North of Kells Motorway Scheme on behalf of Meath County Council NRDO and the NRA and represented two modern drainage ditches and two root boles. Therefore the entire site was non-archaeological.

5 REFERENCES

Fairburn, N 2004 *Report on Archaeological Assessment at Testing Area 8, Ardracchan, Co. Meath, Licence Number: 04E0581*. Unpublished report prepared for Archaeological Consultancy Services Ltd.

Signed:

A handwritten signature in black ink, appearing to read 'Terry Connell', written in a cursive style.

Terry Connell

October 2008.

APPENDIX 1 Context Details

Boyerstown 6: A023/019											
No	Type	Fill of/ Filled with	Strat above	Strat below	Description	Interpretation	Group	Artefacts	Animal bone	Cremated bone	Samples
1-3					used previously during Topsoil Assessment						
4	fill	10	10		grey, sandy clay	fill of drain 10					
5	fill	11	11		grey, sandy clay	fill of drain 11					
6	fill	12	12		organic, peat-based clay with evidence for root activity	fill of tree bole 12					# 3, 9 4g charcoal
7	fill	13	8		organic, peat-based clay with evidence for root activity	fill of tree bole 13					
8	fill	13	9	7	organic, peat-based clay with evidence for root activity	fill of tree bole 13					# 1, 2, 4, 7, 8, peat, 9g charcoal
9	fill	13	13	8	organic, peat-based clay with evidence for root activity	fill of tree bole 13					
10	cut	4		4	northwest-southeast, linear cut (40m x 1.10m x 0.40m) with a sharp break of slope, gentle-steep sides and a gradual-sharp break of slope leading to a flat base	drain					
11	cut	5		5	northeast-southwest cut (25.65m x 1.10m x 0.24m) with a sharp break of slope, gentle sides and a gradual break of slope leading to a concave base	modern, ceramic pipe drain					
12	cut	6		6	oval cut (0.86m x 0.82m x 0.23m) with a gradual break of slope, gentle sides and a gradual break of slope leading to a tapered base	tree bole					
13	cut	7, 8, 9		9	irregular cut (4.32m x 3.35m x 0.17m) with a sharp break of slope, gentle sides and a gradual break of slope leading to an irregular base	tree bole					
14	topsoil	N/A	15	N/A	0.15-0.20m depth, mid-grey soil	topsoil					
15	subsoil	N/A	N/A	14	Brown clayey silt	subsoil					

APPENDIX 2 *Finds List*

Find No	Description
A023/019:4:1–2	Modern pottery
A023/019:5:1	Ceramic drainage pipe

APPENDIX 3 *Sample List*

Sample No	Context No	Results
1, 2, 4, 7, 8	8	Peat, 9g charcoal
3, 9	6	4g charcoal

APPENDIX 4 Radiocarbon Dates

Context	Sample No	Material	Species id/ Weight	Lab	Lab Code	Date Type	Calibrated Date	Conventional Date (BP)	13C/12C ration 0/00
F8 fill of tree bole	4	Charred	Alder	Beta	241320	AMS(Std)	BC 1609-1428	3230±40	-24.4

APPENDIX 5 *Environmental Report*



**Boyerstown 6, M3 Motorway Project, Co
Meath, Ireland**

plant macrofossil and charcoal analysis

on behalf of

Archaeological Consultancy Services Ltd

Report 1937

August 2008

Archaeological Services

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Boyerstown 6, M3 Motorway Project, Co Meath, Ireland

plant macrofossil and charcoal analysis

Report 1937

August 2008

Archaeological Services Durham University

on behalf of

Archaeological Consultancy Services Ltd

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

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1. Summary

The project

- 1.1 Bronze Age pits were excavated at Boyerstown 6, Co Meath, Ireland by Archaeological Consultancy Services Ltd. This report presents the results of plant macrofossil and charcoal analysis of the upper fill of a charcoal-rich feature (context 8).

Results

- 1.2 The analysis can provide only limited information about the site and the feature, due to the poor preservation of plant macrofossils and charcoal. The few remains suggest the proximity of open meadow vegetation, in addition to areas of wetland.

2. Project background

Location and background

- 2.1 An excavation was undertaken by Archaeological Consultancy Services Ltd at Boyerstown 6, Co Meath, Ireland. Pits were identified on the site, and initial radiocarbon dating suggests that these are Bronze Age in date. This report presents the results of plant macrofossil and charcoal analysis of the upper fill of a charcoal-rich feature (context 8).

Objective

- 2.2 The objective was to analyse the plant macrofossils and charcoal from the feature, and identify material suitable for radiocarbon dating.

Dates

- 2.3 Samples were received by Archaeological Services Durham University in November 2007. Analysis and report preparation was conducted between November 2007 - August 2008.

Personnel

- 2.4 Sample processing was undertaken by Archaeological Consultancy Services Ltd. The environmental analysis and report preparation was carried out by Dr Charlotte O'Brien. The residue was sorted by Mr Lorne Elliott.

Archive

- 2.5 The licence number is A023/019. The seeds, flot and charcoal are currently at the Environmental Laboratory at Archaeological Services Durham University awaiting collection or return.

3. Methods

- 3.1 The residue was examined for plant remains, shells, bones, pottery sherds and metalworking debris. The plant remains were scanned at up to x60 magnification using a Leica MZ6 stereomicroscope and seeds were identified by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant taxonomic nomenclature follows Stace (1997).
- 3.2 Charcoal was collected from the flot and residue. Following Boardman (1995), identifications were made on all fragments >4mm. The transverse, radial and tangential sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Hather (2000), and modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. A single entity of alder charcoal, weighing 122mg, was provided for radiocarbon dating.

4. Results

- 4.1 Small amounts of charcoal and possible fire-cracked stones were present in the residue. The small flot contained a few beetle wing cases, insect egg cases, roots and indeterminate vegetative material. These may have been preserved as a result of the waterlogged conditions of the site, but some modern intrusive material may be present. The only plant macrofossils recorded were uncharred seeds of thistle, blinks and buttercups.
- 4.2 Most of the charcoal was in a poor condition and crumbled easily. Two fragments of alder were identified. The results of the environmental analysis are presented in Table 4.1.

Table 4.1: Plant macrofossils and charcoal from Roestown 3

Context	8
Sample	4
<i>Material available for radiocarbon dating</i>	✓
<i>Volume of flot (ml)</i>	40
<i>Residue matrix (relative abundance)</i>	
Charcoal	1
Cracked/angular stones	1
<i>Flot matrix (relative abundance)</i>	
Beetle (wing case)	1
Charcoal	2
Insect (egg case)	1
Roots	1
Vegetative material (indet.)	1
<i>Charcoal (mg/number of fragments)</i>	
Total charcoal analysed (mg)	732
Number of identifiable fragments >4mm	2
<i>Alnus glutinosa</i> (Alder)	152 (2F)
Unidentified >4mm fraction	580
<i>Uncharred remains (relative abundance)</i>	
(r) <i>Cirsium</i> sp (Thistle) achene	1
(w) <i>Montia fontana</i> (Blinks) seed	1
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup) achene	1

[r-ruderal; w-wetland; x-wide niche]. F = number of charcoal fragments.
Relative abundance is based on a scale from 1 (lowest) to 5 (highest).

5. Discussion

- 5.1 The analysis can provide only limited information about the site and the feature, due to the poor preservation of plant macrofossils and charcoal. The few uncharred seeds suggest the proximity of open meadow with thistles and buttercups. Blinks favours seasonally or permanently wet places (Preston *et al* 2002), indicating that some damper ground occurred locally. The two fragments of identifiable charcoal indicate that alder was growing locally, which would also have favoured waterlogged conditions. They may have grown as individual stands or in an alder carr.

6. Sources

Boardman, S J, 1995 Charcoal and charred macrofossils, in K, Branigan & P, Foster (eds) *Barra: archaeological research on Ben Tangaval, Sheffield: SEARCH Volume 1*, 149-157

Hather, J G, 2000 *The identification of the Northern European Woods: a guide for archaeologists and conservators*, London

Preston, C D, Pearman, D A, & Dines, T D, 2002 *New Atlas of the British and Irish Flora*, Oxford

Stace, C, 1997 *New Flora of the British Isles*, 2nd Edition, Cambridge

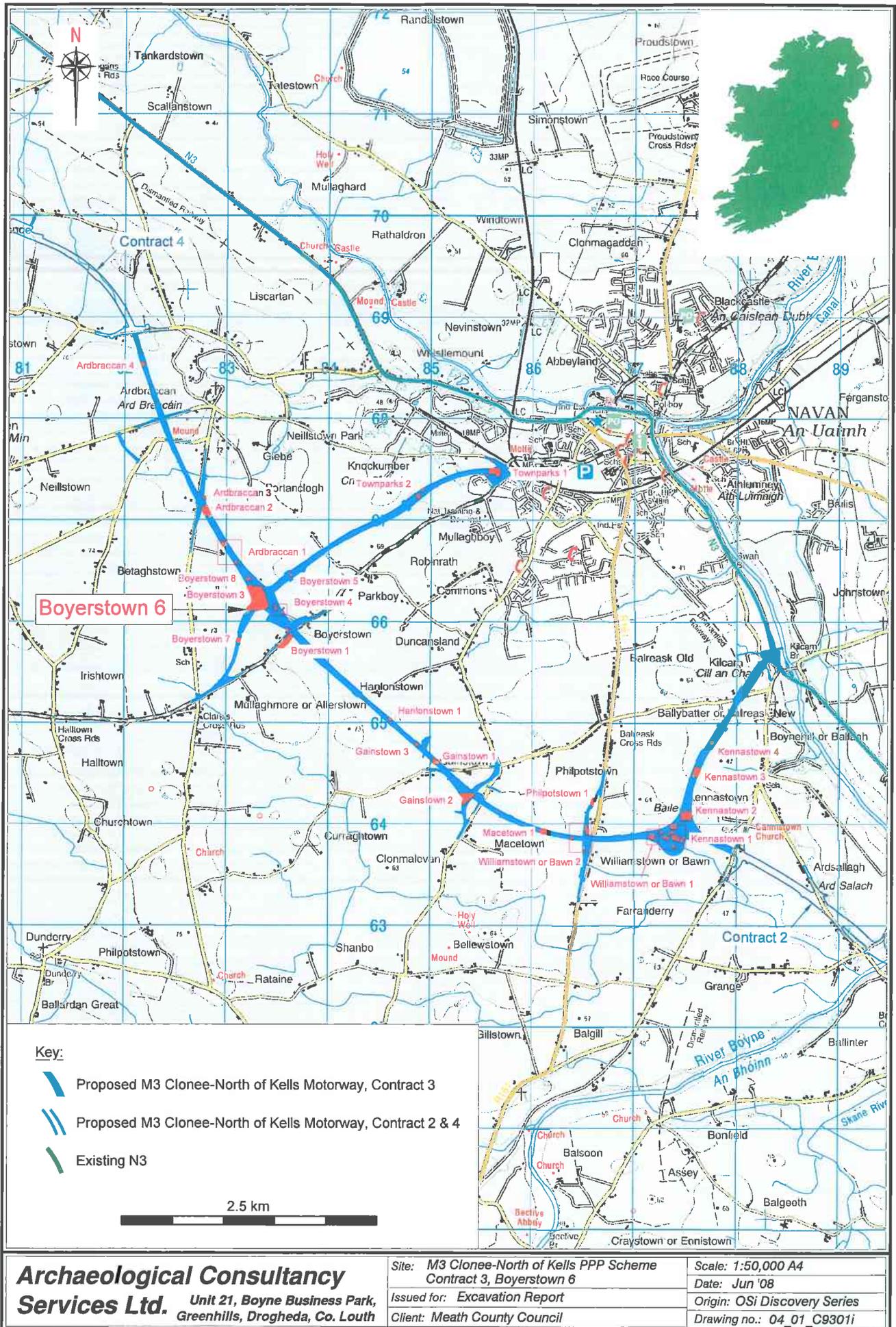
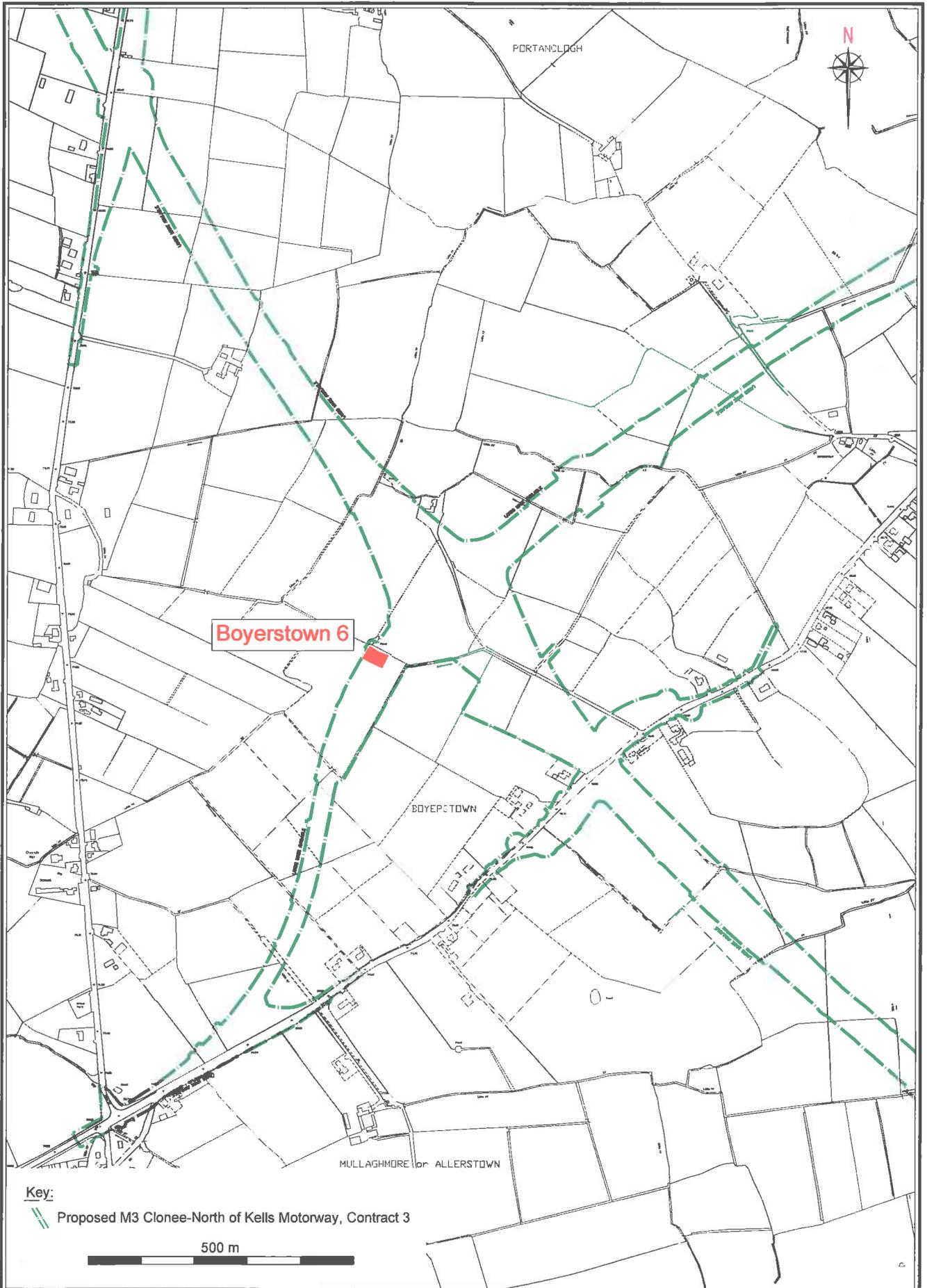


Figure 1: Location of Boyerstown 6

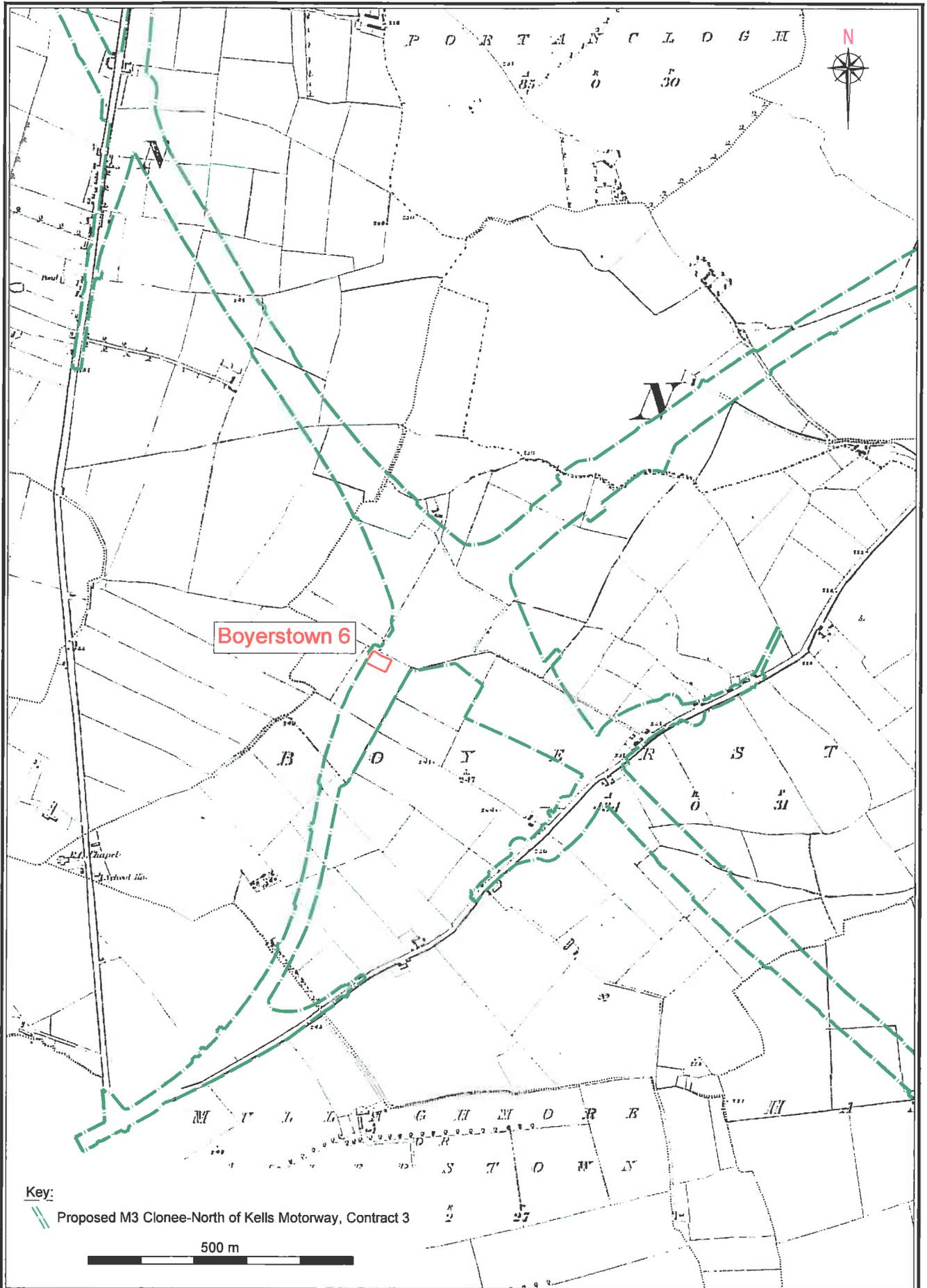


Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth

Site: M3 Clonee-North of Kells PPP Scheme Contract 3, Boyerstown 6
 Issued for: Excavation Report
 Client: Meath County Council

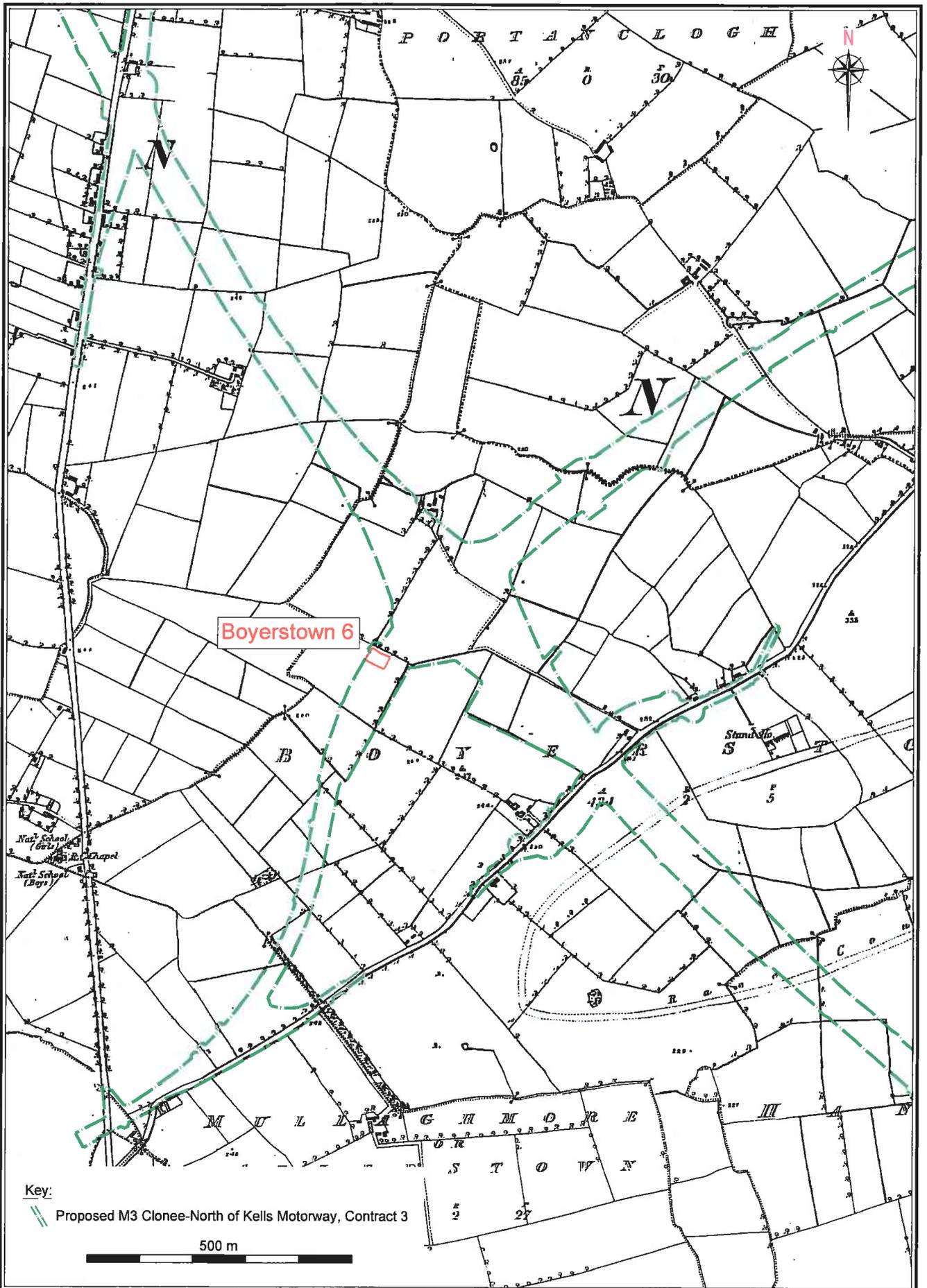
Scale: 1:10,000 A4
 Date: Jun '08
 Origin: Client/ACS Ltd.
 Drawing no.: 04_01_C9302i

Figure 2: Location of Boyerstown 6 on current OS background



Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 3, Boyerstown 6	Scale: 1:10,000 A4
	Issued for: Excavation Report	Date: Jun '08
	Client: Meath County Council	Origin: OSI (1836)
		Drawing no.: 04 01 C9303i

Figure 3: Boyerstown 6, extract from 1st edition OS map, Meath sheets 24, 25, 30 & 31

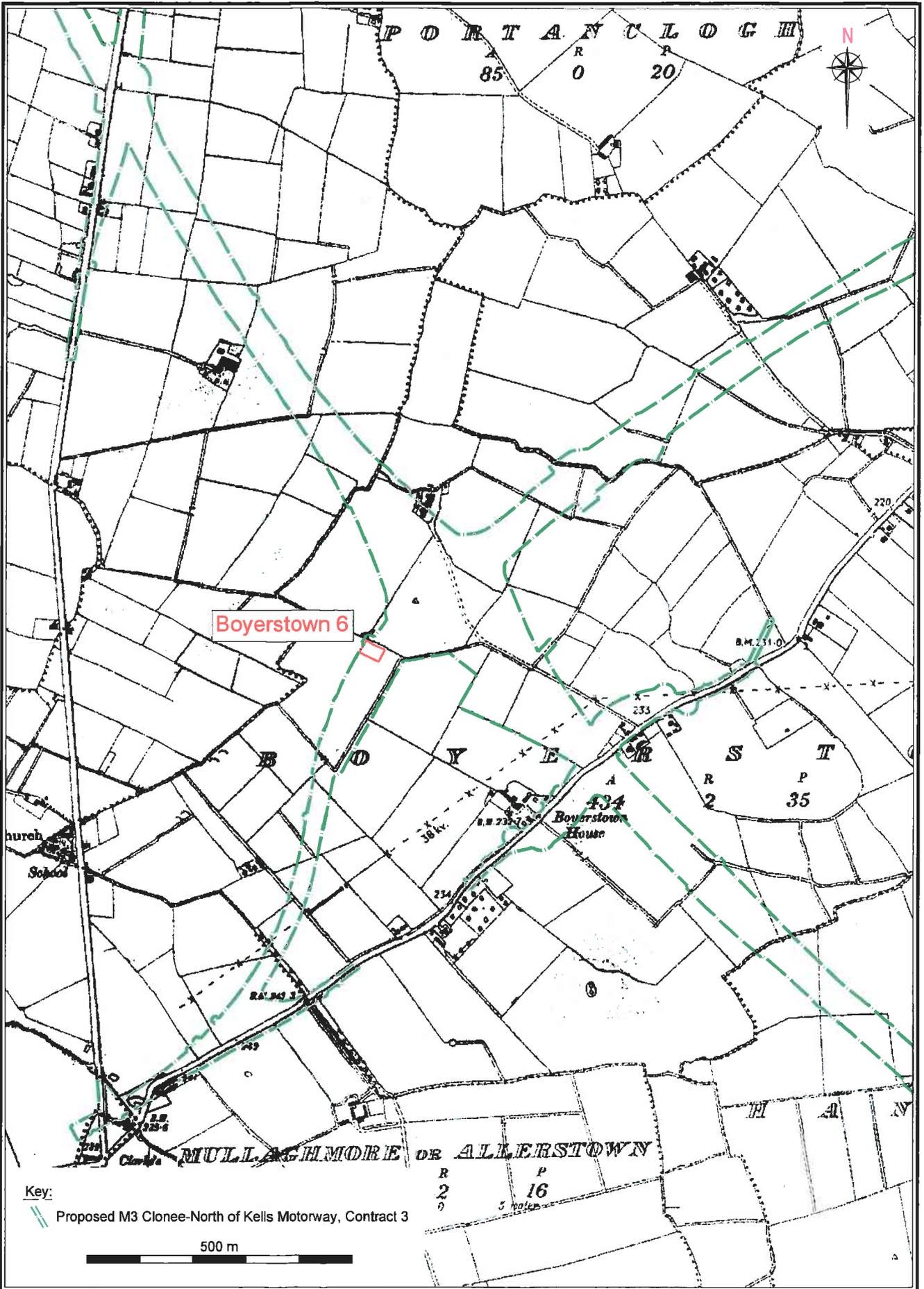


Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth

Site: M3 Clonee-North of Kells PPP Scheme Contract 3, Boyerstown 6
 Issued for: Excavation Report
 Client: Meath County Council

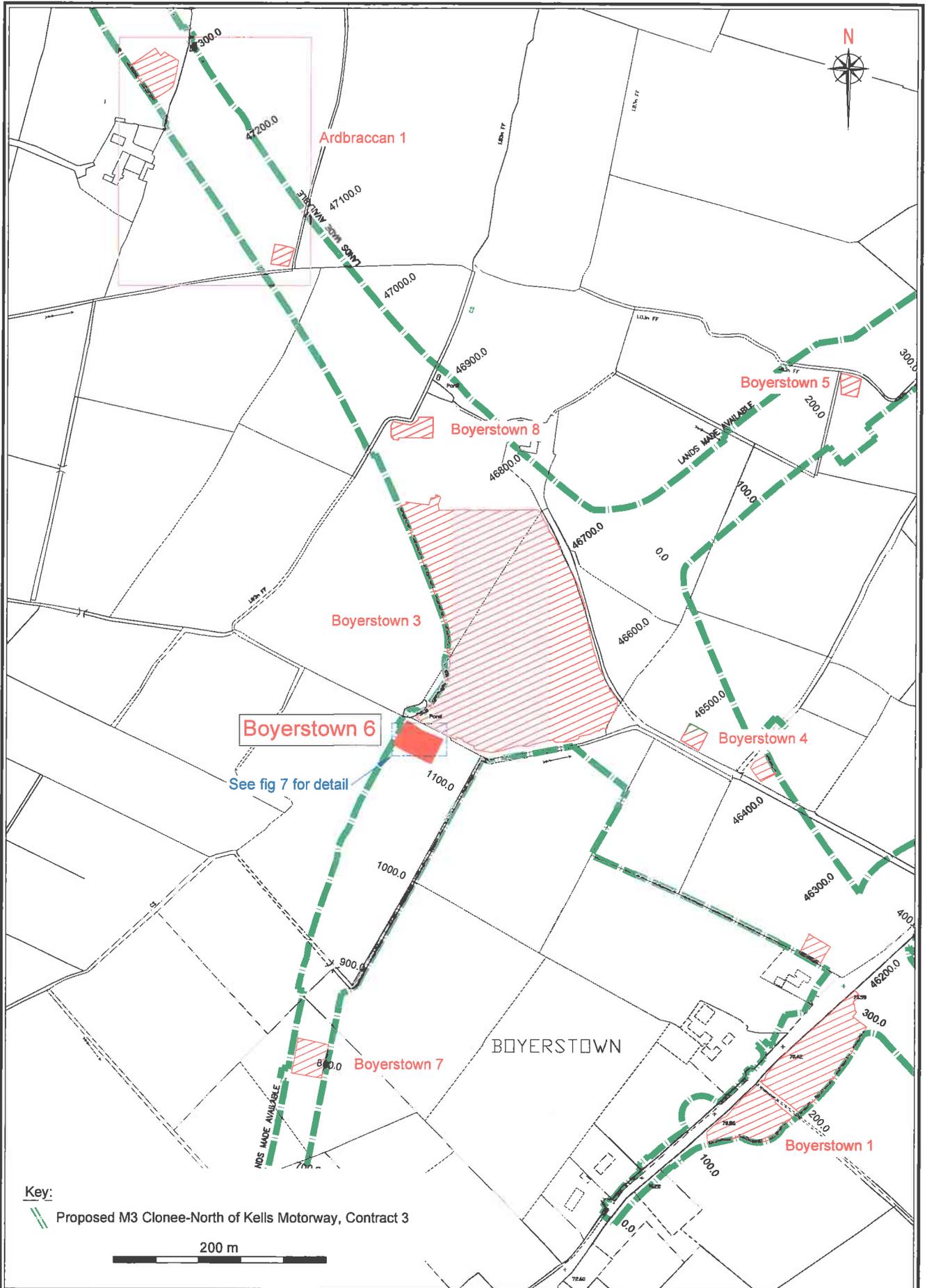
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 Date: Jun '08
 Origin: OSI (1882)
 Drawing no.: 04_01_C9304i

Figure 4: Boyerstown 6, extract from 2nd edition OS map, Meath sheets 24, 25, 30 & 31



Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 3, Boyerstown 6	Scale: 1:10,000 A4
	Issued for: Excavation Report	Date: Jun '08
	Client: Meath County Council	Origin: OSI 24(1910), 25(1955), 30 & 31(1909)
		Drawing no.: 04 01 C9305j

Figure 5: Boyerstown 6, extract from 3rd edition OS map, Meath sheets 24, 25, 30 & 31

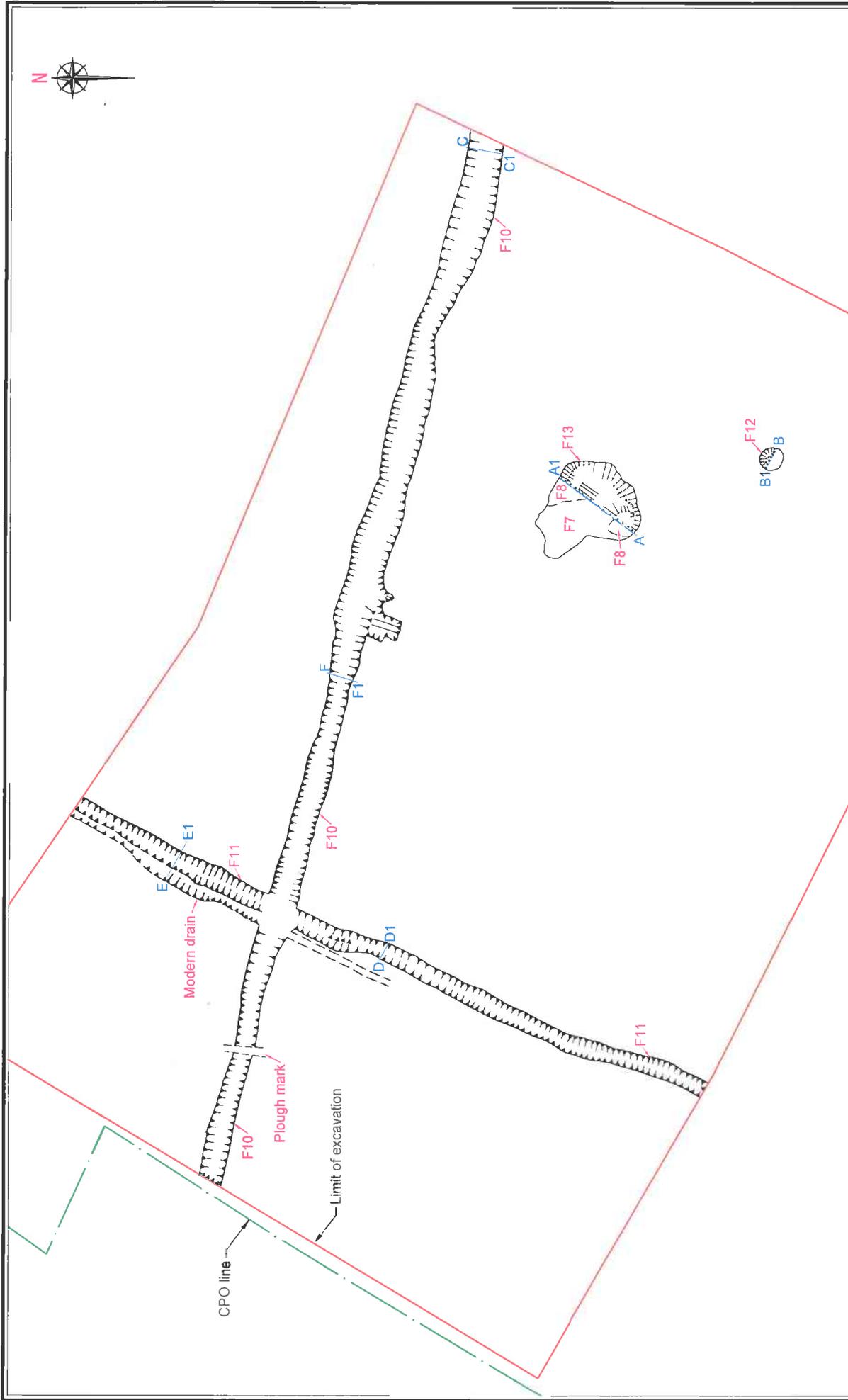


Key:
 Proposed M3 Clonee-North of Kells Motorway, Contract 3

200 m

Archaeological Consultancy Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth	Site: M3 Clonee-North of Kells PPP Scheme Contract 3, Boyerstown 6	Scale: 1:5,000 A4
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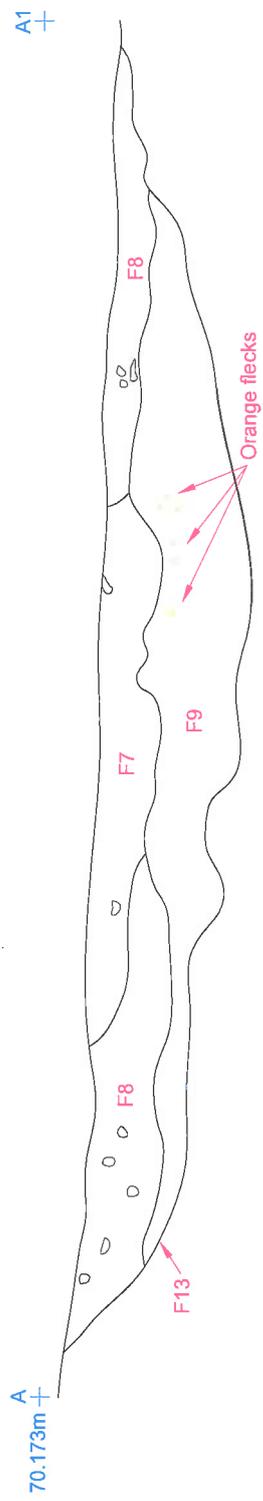
Figure 6: Detailed location of Boyerstown 6



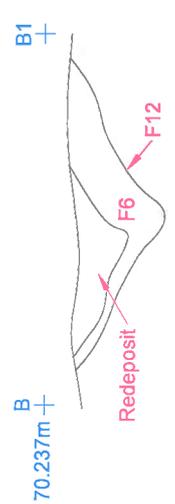
Archaeological Consultancy		Scale: 1:200 A4	
Services Ltd. Unit 21, Boyne Business Park, Greenhills, Drogheda, Co. Louth		Date: Jun '08	
Site: M3 Clonee-North of Kells PPP Scheme Contract 3, Boyerstown 6		Origin: ACS Ltd.	
Issued for: Excavation Report		Drawing no.: 04_01_C93071	
Client: Meath County Council			

Figure 7: Detailed plan of features

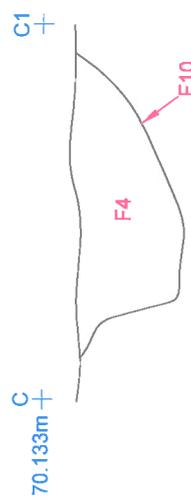
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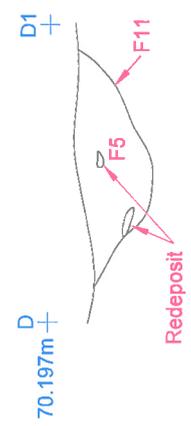
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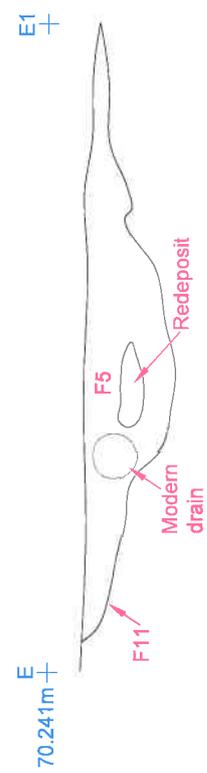
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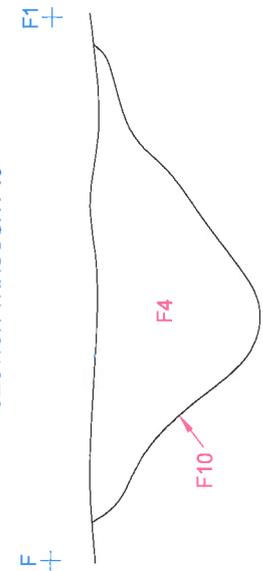
SECTION THROUGH F11



SECTION THROUGH F11



SECTION THROUGH F10



Key:



Stone



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Figure 8: Sections of features



Plate 1: General view of sections of linear feature within Boyerstown 6 facing northeast (04_01_Boyerstown 6_CP01_01)