

Archaeological Evaluation Report:
Lincoln North Primary School, Carlton Boulevard, Lincoln

NGR: TF 000 727
Planning Authority: Lincolnshire County Council
Planning Ref.: Pre-Application
LCC Archaeological Advisor: J. Allen
LCC Accession Code: 2012.149
PCAS Site code: LNSE12
PCAS Job No.: 943

Report prepared for
Willmott Dixon Construction Ltd., on behalf of Lincolnshire County Council

by
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Summary

In October 2012, a programme of archaeological evaluation (trial-trenching) took place to inform a planning application for a new primary school on the site of the former Lincoln City FC training ground at Carlton Boulevard in Lincoln (centred on NGR: TF 000 727).

The work, conducted in accordance with a Written Scheme of Investigation approved by Lincolnshire County Council (LCC), represented an initial stage of archaeological investigation on the site.

No pre-modern archaeological features or deposits were observed during the evaluation. The results show that neither Option 1 nor Option 2 of the proposed development will have any impact on archaeological remains.

1.0 Introduction

- 1.1 Pre-Construct Archaeological Services Ltd (PCAS) were commissioned by Willmott Dixon Construction Ltd., on behalf of Lincolnshire County Council to undertake a scheme of archaeological evaluation (trial-trenching) on land at the proposed Lincoln North Primary School, Carlton Boulevard, Lincoln on the site of the former Lincoln City FC training ground (**Fig. 1**). The work, conducted in accordance with a Written Scheme of Investigation (PCAS October 2012), approved by Lincolnshire County Council (LCC), represented an initial stage of archaeological investigation on the site.

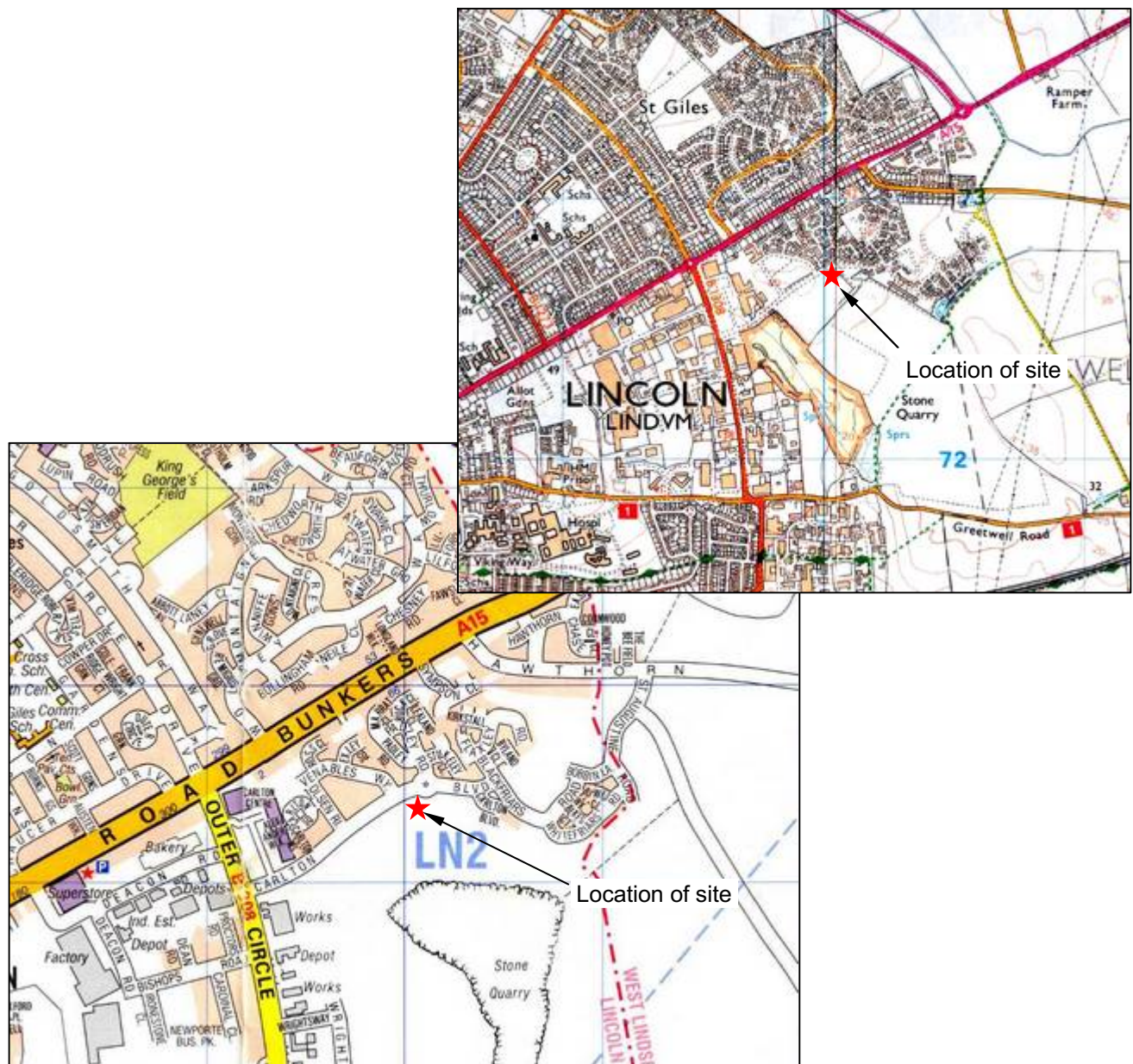


Fig. 1. Site location plan at scale 1:25,000, with an enlarged detail plan, not to scale. OS mapping ©Crown copyright. All rights reserved. PCAS Licence No. 100049278.

2.0 Site location and description

- 2.1 The proposed development site is located on the north-eastern edge of the city of Lincoln, to the east of the Outer Circle Road. It lies within the city ward of Minster, and falls within the Bunkers Hill Character Area of the city, which essentially comprises a large residential housing development with an associated retail centre. The development, which remains ongoing, was begun in the late 20th century on former agricultural land on the margin of the city. Most of this area consists of very large urban blocks, with the remainder of the area divided into small-to-medium irregular-shaped urban blocks, many of which are defined by cycle-ways and/or footpaths (CLC, 2009).
- 2.2 The site adjoins an area of new residential development on the south side of Carlton Boulevard; it comprises a roughly L-shaped area of approximately 3.3 hectares. The central National Grid Reference of the site is TF 000 727 (see **Fig. 1**).

3.0 Geology and topography

- 3.1 No drift geology is recorded in the area of the site. The solid geology is Lincolnshire Limestone, with an area of ironstone to the south and south-west, now worked out by open-cast quarrying (BGS, 1973).
- 3.2 The site lies on the eastward scarp slope of the Lincoln Edge, between the 40m and 35m OD contour lines.

4.0 Planning background

- 4.1 A planning application is currently being compiled for the construction of a new primary school with community areas, hard playing surfaces and grassed sports pitches, and will be submitted in October 2012. The layout of the proposed school buildings has not yet been finalised and two options are under consideration (**Fig. 2**). The results of the archaeological evaluation presented here will be used to inform the implementation of one of the two options and to assist in the planning application.

5.0 Archaeological and historical background

- 5.1 Fieldwalking and trial trenching approximately 400m to the east of the proposed development site recovered small assemblages of Neolithic to early Bronze Age worked flint, suggesting a low level of activity in the area (HER No. 70221).
- 5.2 Land within the Bunkers Hill Character Area may have been cultivated, if not grazed, in pre-Roman times. Although no visible evidence of early field boundaries currently exists, the remains of a triple boundary ditch runs through the area (CLC, 2009). This feature is recorded by the Lincolnshire HER as running to the south-east and east of the proposed development site, passing within 500m of it. Archaeological evaluation and excavation carried out in the late 1990s indicated that the area of the triple ditch was inhabited, possibly as early as the late Bronze Age into the late Iron Age. Archaeological monitoring conducted during the Bunkers Hill development found only tenuous evidence for the ditch system on its projected line, with no other associated finds or features (HER No. 50348).
- 5.3 The HER also records an oval enclosure containing a possible ring ditch approximately 400m to the east of the proposed development site. No archaeological

investigations have taken place, but the feature is provisionally interpreted as pre-dating the triple ditch (HER No. 70178).

- 5.4 During the Roman military occupation of Lincoln and its later existence as a Roman Colonia, the area may have been part of the *territorium*: an area of land surrounding major Roman fortresses in which agricultural production and services were dedicated to the service of the legion rather than the local population. It is likely that ironstone and limestone quarrying began in the neighbourhood during this period.
- 5.5 Wragby Road, which forms the northern boundary of the Bunkers Hill Character Area was first established as a Roman military road (CLC, 2009). An area of Romano-British activity was identified roughly 400m to the east of the proposed development site, when a possible track was found, with artefacts indicating both military and wealthy civilian occupation in the vicinity (HER ref. 70220).
- 5.6 A 2nd to the 4th century AD settlement site has been located approximately 800m east-south-east of the proposed development site. Extensive areas of its hinterland have been identified, including an informal burial ground situated to the west of the pre-Roman triple-ditch system, and therefore closer to the school site (roughly 400-500m to the south-east), from which 13 burials dating to the later 2nd and 3rd century were retrieved (HER ref. 52842).
- 5.7 Economic decline of the city in the post-Roman period may have resulted in much of the Bunkers Hill Character Area becoming less intensively farmed, although it is likely that heathland in the area continued to be grazed. Quarrying is also likely to have continued. During the Middle Ages, the majority of land in the Character Area was part of the open-field agricultural land of Greetwell Parish (CLC, 2009).
- 5.8 The open fields of Greetwell are believed to have been enclosed by private agreement in the later 18th or early 19th century; the lines of field boundaries dating from this time can still be seen in the present townscape (CLC, 2009). A range of intrusive and non-intrusive archaeological investigations carried out in the vicinity of Greetwell Quarry have recorded a medieval and post-medieval field system, deducing that agriculture in the area changed from arable to pastoral in the 16th to 17th century, with a return to arable in the 18th to 19th century (HER ref. 54248).
- 5.9 The land upon which the present Bunkers Hill development is located remained rural until its development during the late 20th and early 21st century for housing and a retail centre. Stone extraction in Greetwell Quarry, to the south and south-east of the site, continued until the early 21st century.

6.0 Site investigation background

- 6.1 The layout of the proposed school buildings has not yet been finalised and two options are under consideration. The results of the evaluation presented in this report have been used to assess the potential impact of the development on any archaeological remains, in order to inform the planning application currently in preparation.

7.0 Aims & Methodology

- 7.1 The principal aim of the evaluation was to gather sufficient information to establish the presence or absence, location, extent, depth, condition, character, quality and date of any archaeological remains on the site.
- 7.2 The approved Written Scheme of Investigation for the archaeological evaluation (PCAS October 2012) and subsequent evaluation fieldwork were designed in collaboration with the Lincolnshire County Council Planning Archaeologist and Lincoln Museums. The scheme of works and this report have been conducted in accordance with current best practice and appropriate national guidance including:
- *The Management of Archaeological Projects (MAP2)*, (English Heritage, 1991);
 - *National Planning Policy Framework*. Department for Communities and Local Government. March 2012
 - *Standard Briefs for Archaeological Projects in Lincolnshire: Lincolnshire Archaeology Handbook* (Lincolnshire County Council, 1997, Last Rev. 2010);
 - *IFA Code of Conduct* (1994 as revised);
 - *IFA Standards and Guidance for archaeological excavation* (2008);
 - *Management of Research Projects in the Historic Environment* (MoRPHE Rev. 2009);
 - *Standard and Guidance for Archaeological Field Evaluation* (Institute of Field Archaeologists, 1994 as revised);
- 7.3 The results of the evaluation will now be used to form the basis of further discussions between the archaeological contractor and the Lincolnshire County Council Planning Archaeologist for Schools; and to inform the need for, and scope of, any subsequent mitigation strategy.
- 7.4 Before field work commenced an OASIS online record was initiated (<http://ads.ahds.ac.uk/project/oasis>). This has now been completed and will be submitted to the Lincolnshire Historic Environment Record as part of this report (Appendix 3). A Lincolnshire HER accession number was also assigned (LCNCC 2011.149); and arrangements were made with the developers and an appropriate museum (The Collection, Lincoln) for the future deposition of the paper archive (no objects were found).
- 7.5 The excavation areas were accurately located by offsetting from known geographical points using long hand tapes and GPS. All archaeological deposits and features, including those revealed by machine were manually cleaned and recorded and were then sample excavated by hand in accordance with the approved WSI. All context information was recorded on standard Context Record Sheets. Archaeological plans and sections were drawn to appropriate scales (1:10, 1:20 or 1:50), with Ordnance Datum heights calculated for each class of drawing. Photography was conducted in 35mm colour slide format supplemented by colour digital.
- 7.6 Three evaluation trial trenches measuring 25m x 2m were excavated on the site in early October 2012, under the PCAS site code **LNSE12**. The trenches were accurately located as illustrated in the approved Written Scheme (PCAS 2012). A

slight exception was Trench 1, which was repositioned on the same alignment some two metres to the south, due to the close proximity of a CCTV camera pole. The trenches were sited to evaluate the archaeological potential of the two development options and were excavated within the proposed footings of the two options (**Fig. 2**).

8.0 Results (Figs. 3 & 4)

- 8.1 The three evaluation trial trenches were set out and excavated between the 10th and 11th of October 2012, under the PCAS site code **LNSE12**. All three trenches were excavated down to the natural substrate. All three trenches contained topsoil and natural deposits; only trenches 1 and 2 contained subsoil; and trenches 1 and 3 contained modern deposits. A single, modern linear feature was recorded in Trench 2 (see **Appendix 1 and Appendix 2 plates**).
- 8.2 The natural substrate in Trench 1 comprised the Lincolnshire Limestone (102), above which were a series of modern deposits, 0.35m deep that were given a group number (103). These deposits possibly relate to the levelling of demolition deposits to create the playing field. Above this group deposit was c. 0.25m of natural silty clay subsoil (101), sealed by 0.15m clay-sand topsoil (100), (**Fig. 3**).
- 8.3 The natural substrate in Trench 2 comprised the Lincolnshire Limestone cornbrash (202). Above the natural was c. 0.20m of mid greyish-brown subsoil (201). The subsoil and natural were cut by a c. east-west aligned linear [204], measuring 0.85m wide and 0.11m deep. The linear appeared to have been deliberately infilled with a compact silty fill (203) containing modern debris (plastic, tile and wire). The feature was sealed by 0.30m of topsoil (200), (see **Fig. 3**).
- 8.4 Trench 3 contained a natural silty clay drift deposit (302) at its southern end. Above the natural was a deep, mixed deposit of silty sandy clay (303) containing modern debris, including frequent reinforced concrete fragments, tarmac and plastic. This deposit, up to 0.60m deep in places, was interpreted as a levelling deposit, possibly related to the consolidation of naturally-sloping ground; or disturbance associated with the adjacent quarry workings. Deposit 303 was sealed by sealed by 0.30m of dark grey-brown topsoil (300), (see **Fig. 4**).
- 8.5 No finds were recovered from any of the excavated trial trenches. No environmental samples were taken from the site due to the lack of non-modern archaeology.

9.0 Discussion and conclusion

- 9.1 No archaeological features or deposits were observed during the excavation of the three trial trenches. No archaeological finds or artefacts were recovered from the site.
- 9.2 In conclusion, the results of the archaeological work carried out to date show that neither Option 1 nor Option 2 of the proposed development will have any impact on archaeological remains.

10.0 Site Archive

- 10.1 The documentary archive for this scheme is currently in the possession of Pre-Construct Archaeological Services Ltd. This will be deposited with Lincoln Museum, The Collection within six months of submittal of this report under the PCAS Site code **LNSE12** and unique Lincs. Accession Number **2012.149**.

11.0 Acknowledgements

- 11.1 Pre-Construct Archaeological Services Ltd., are grateful to Willmott Dixon Construction Ltd., and Lincolnshire County Council for this commission; and to Jan Allen the LCC Archaeological Advisor for Schools, for her guidance throughout the project.

12.0 References

British Geological Survey, 1973, *Lincoln: England and Wales 1:50,000 Series sheet 114, Solid and Drift Provisional Edition*. BGS, Keyworth, Nottingham.

City of Lincoln Council (CLC), 2009, Lincoln Townscape Assessment: Bunkers Hill Inherited Character Area Statement. Consulted online 03/10/12 at <http://www.heritageconnectlincoln.com/character-area/bunkers-hill/74/overview>

Ordnance Survey, 2006, *Lincoln, Sleaford, Metherringham and Navenby: Explorer 1:25 000 Series*. Ordnance Survey, Southampton.

PCAS: Pre-Construct Archaeological Services Ltd. October 2012. *Lincoln North Primary School, Carlton Boulevard, Lincoln: Specification for an Archaeological Evaluation*. PCAS WSI by R. D. Savage.

Figures

Appendix 1. Context summary

Context No.	Site Code	Location	Type	Description	Finds/ Dating
100	LNSE12	Trench 1	Layer	Topsoil – quite compact dark greyish-brown slightly clayey sandy silt. Turfed over to form playing field.	None
101	LNSE12	Trench 1	Layer	Subsoil- compact slightly orange dark greyish brown silty clay containing common, small angular stones and limestone flecks.	None
102	LNSE12	Trench 1	Layer	Natural - quite compact mid orange-brown clayey limestone. Lincolnshire Limestone, though not homogenous: contains orange sandy patches, limestone blocks and dust. Slightly clayey overall with patches of clean blue clay.	None
103	LNSE12	Trench 1	Group of Deposits	Group number for series of modern deposits: possibly part of a levelling event of demolition deposits to create the playing field.	None
200	LNSE12	Trench 2	Layer	Topsoil – quite compact dark greyish-brown slightly clayey sandy silt. Turfed over to form playing field.	None
201	LNSE12	Trench 2	Layer	Subsoil- compact mid greyish brown silty clay containing very common limestone fragments and CBM flecks. Below 200; Cut by [204]?	None
202	LNSE12	Trench 2	Layer	Natural - quite compact mid whiteish-brown clayey limestone. Lincolnshire Limestone, though not homogenous: contains limestone chunks and dust. Slightly clayey overall with more substantial orange and blue clay deposits at the SW end. Below 201.	None
203	LNSE12	Trench 2	Fill	Fill of linear [204]- very compact mixed orangey brown clayey silt containing limestone chunks and modern debris (plastic, tile, wire). Deliberate fill has been pressed into the natural, appearing mixed and dirty.	None
204	LNSE12	Trench 2	Cut	Small linear feature with gradual to irregular sides and an irregular base. Possibly represents a small depression deliberately filled with modern rubble and debris (203). Cuts Natural (202) and possibly subsoil (201).	-
300	LNSE12	Trench 3	Layer	Topsoil – Friable dark grey-brown sandy silt with some clay content. Turfed over to form playing field.	None
301	LNSE12	Trench 3	Layer	Number voided- no subsoil present in Trench 3.	None
302	LNSE12	Trench 3	Layer	Natural drift geology- compact to firm pale yellowish-brown silty clay. Visible only at the southern end of Trench 3.	None
303	LNSE12	Trench 3	Layer	Mixed deposit of mixed dark brown-grey and pale buff yellow-brown silty to sandy clay. Contains modern debris including frequent reinforced concrete fragments, tarmac and plastic. Probably represents a levelling deposit-perhaps relating to the consolidation of naturally-sloping ground; or in relation to disturbance from the adjacent quarry workings. Below topsoil 300.	None

Appendix 2. Plates



1. General view of the site prior to evaluation, looking WSW



2. General view of the site prior to evaluation, looking WNW



3. Evaluation Trench 1



4. Trench 1, representative section



5. Evaluation Trench 2.



6. Trench 2, representative section



7. Modern linear [204] in trench 2.



8. Evaluation Trench 3, looking SE



9. Modern deposit 303 in Trench 3



10. Sondage through modern deposit 303 in Trench 3

Appendix 3. Oasis Data Collection Form: preconst3-135818

Project details

Project name Lincoln North Primary School, Carlton Boulevard, Lincoln

Short description of the project In October 2012, a programme of archaeological evaluation (trial-trenching) took place to inform a planning application for a new primary school on the site of the former Lincoln City FC training ground at Carlton Boulevard in Lincoln (centred on NGR: TF 000 727). The work, conducted in accordance with a Written Scheme of Investigation approved by Lincolnshire County Council (LCC), represented an initial stage of archaeological investigation on the site. No pre-modern archaeological features or deposits were observed during the evaluation. The results show that neither Option 1 nor Option 2 of the proposed development will have any impact on archaeological remains.

Project dates Start: 01-10-2012 End: 30-10-2012

Previous/future work No / Not known

Any associated project reference codes LNSE12 - Sitecode

Any associated project reference codes 2012.149 - Museum accession ID

Any associated project reference codes 943 - Contracting Unit No.

Type of project Field evaluation

Site status None

Current Land use Other 13 - Waste ground

Monument type NONE None

Monument type NONE None

Significant Finds NONE None

Significant Finds NONE None

Methods & "Targeted Trenches"
techniques

Development type Public building (e.g. school, church, hospital, medical centre, law courts etc.)

Prompt National Planning Policy Framework - NPPF

Position in the Pre-application
planning process

Project location

Country England

Site location LINCOLNSHIRE LINCOLN LINCOLN proposed Lincoln North Primary School,
Carlton Boulevard, Lincoln

Postcode LN2 4AG

Study area 3.30 Hectares

Site coordinates TF 000 727 53 0 53 14 29 N 000 30 04 W Point

Height OD / Depth Min: 35.00m Max: 40.00m

Project creators

Name of Pre-Construct Archaeological Services Ltd
Organisation

Project brief Local Authority Archaeologist and/or Planning Authority/advisory body
originator

Project design Pre-Construct Archaeological Services
originator

Project Will Munford
director/manager

Project supervisor Julian Sleap

Type of Developer
sponsor/funding
body

Type of County Council
sponsor/funding
body

Name of Lincolnshire County Council
sponsor/funding
body

Project archives

Physical Archive No
Exists?

Digital Archive The Collection, Lincoln
recipient

Digital Contents "none"

Digital Media "Images raster / digital photography", "Text"
available

Paper Archive The Collection, Lincoln
recipient

Paper Contents "none"

Paper Media "Context sheet", "Diary", "Plan", "Report", "Section", "Unpublished Text"
available

Entered by Karen Francis (karen@pre-construct.co.uk)

Entered on 18 October 2012

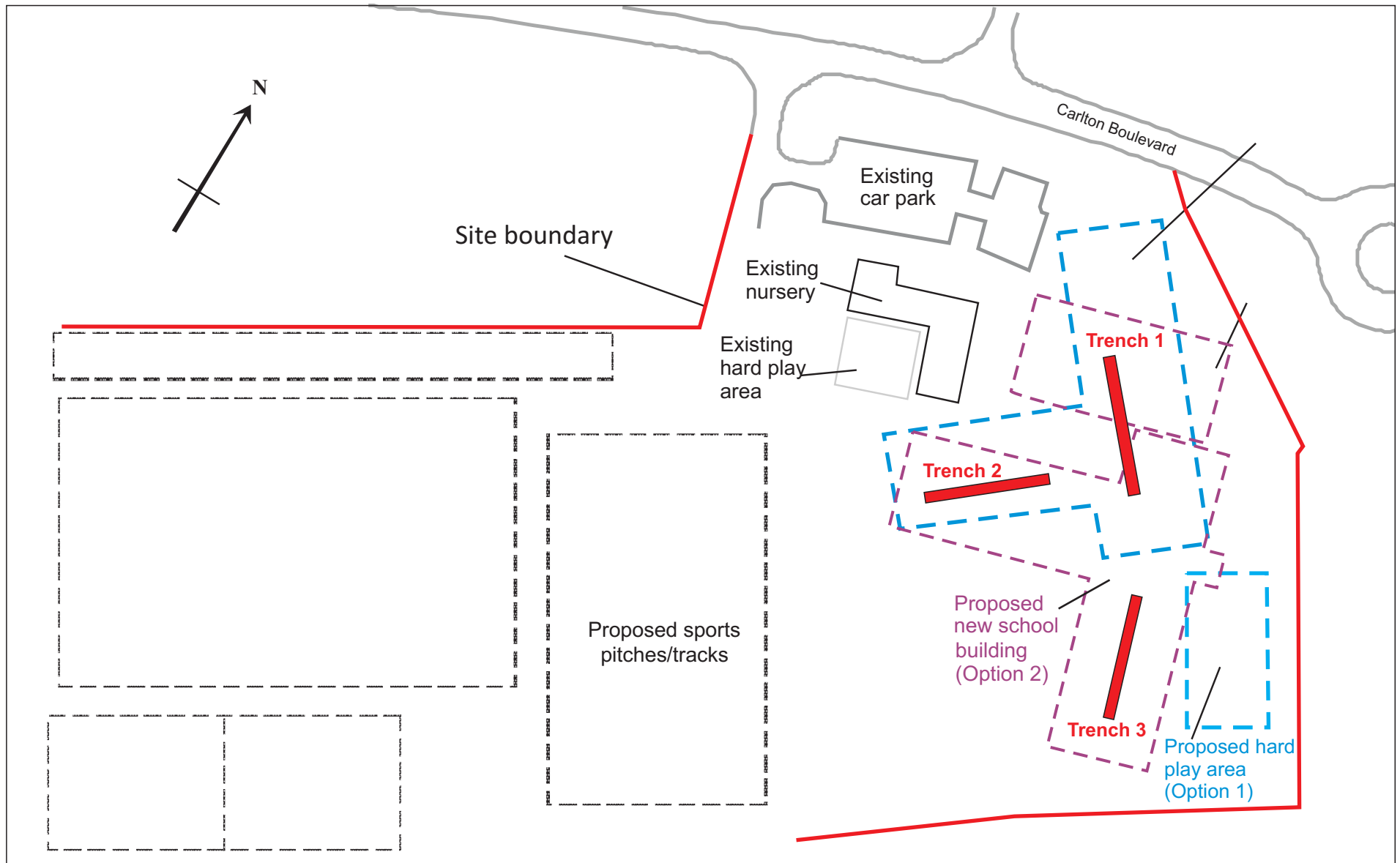


Fig. 2. Trench location plan, showing the two development options (not to scale)

Fig. 3 Trenches 1 and 2

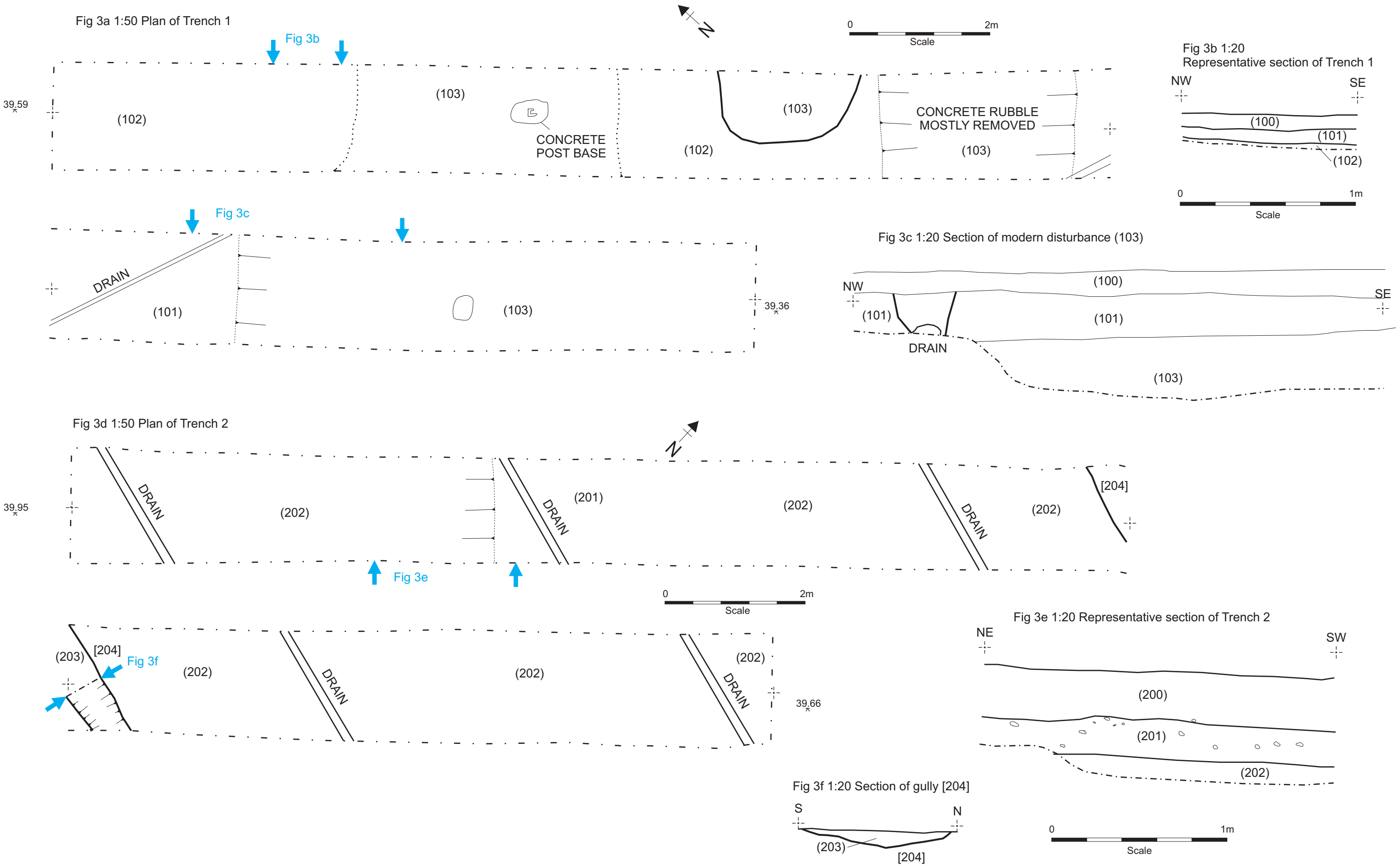


Fig. 4 Trench 3

Fig 4a 1:50 Plan of Trench 3

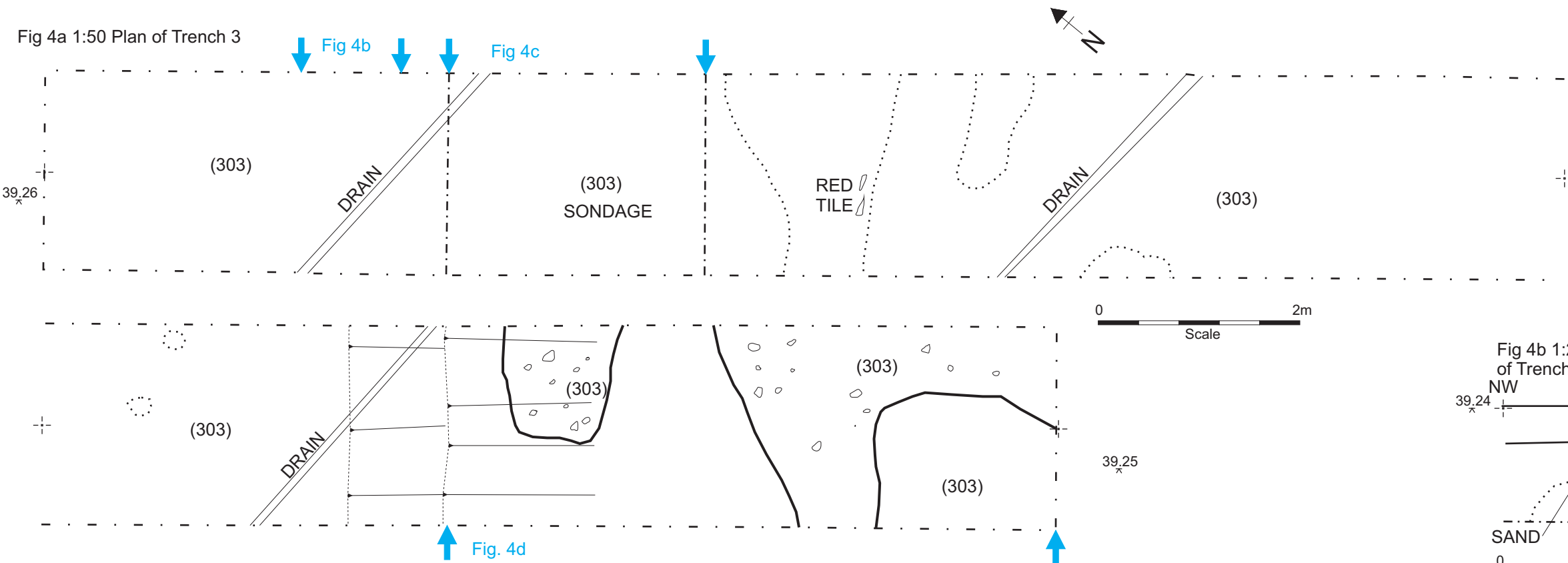


Fig 4b 1:20 Representative section of Trench 3

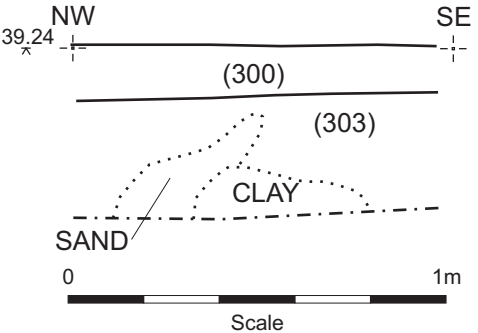


Fig 4c 1:20 Section of sondage through (303)

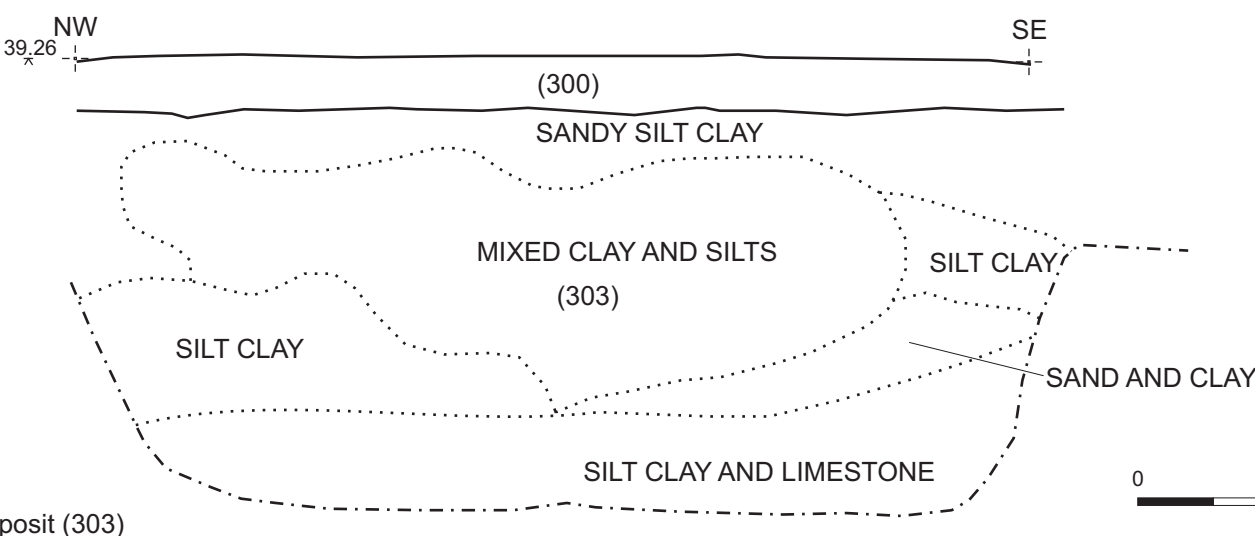


Fig 4d 1:20 Section of natural (302) and modern deposit (303)

