

ARCHAEOLOGICAL WATCHING BRIEF REPORT:
**GROUND INVESTIGATION WORKS AT NORTON COMMUNITY SCHOOL, NORTON-
ON-DERWENT, NORTH YORKSHIRE**

Planning Reference: Pre-planning
NGR: SE 7949 7119
Site Code: NOCS 09
OASIS Reference: allenarc1-62771



Report prepared for

Jacobs Engineering UK Limited

On behalf of North Yorkshire County Council

By
Allen Archaeology Limited
Report Number 2009037

August 2009

Allen Archaeology Limited
Unit 1C, Branston Business Park
Lincoln Road
Branston
Lincolnshire
LN4 1NT, UK
Tel/Fax: +44 (0) 1522 794400
E-mail: allenarchaeology@btconnect.com
Website: www.allenarchaeology.co.uk



Contents

Summary	1
1.0 Introduction	2
2.0 Site Location and Description	2
3.0 Planning Background	2
4.0 Archaeological and Historical Background	2
5.0 Methodology	3
6.0 Results	4
6.1 Soakaway Pit	4
6.2 Test Pits	4
6.3 Boreholes	5
7.0 Discussion and Conclusions	6
8.0 Effectiveness of Methodology	6
9.0 Acknowledgements	6
10.0 References	7
11.0 Site Archive	7

List of Appendices

Appendix 1: Colour Plates	8
Appendix 2: Context Summary List	9
Appendix 3: Archive Summary	10
Appendix 4: Watching Brief Specification	11

List of Figures

- Figure 1:** Location map with the school grounds outlined in red at scale 1:25,000
Figure 2: Site location at scale 1:2500, with the school grounds outlined in red
Figure 3: Site plan, showing location of Soakaway Pit, Test Pits (TP) and Boreholes (BH) at scale 1:1000
Figure 4: Soakaway and Test Pit sections at scale 1:20. Located on Figure 3
Figure 5: Borehole sections at scale 1:20. Boreholes located on Figure 3

List of Plates

- Plate 1:** General working shot during the drilling of Borehole 3. Looking south-south-east from the main entrance
Plate 2: Soakaway pit, north-north-west facing section, looking south-south-east, showing modern topsoil layer 01, sealing possible levelling layer 02, and buried topsoil and subsoil horizons 03 and 04.
Plate 3: Test Pit 2, south-south-east facing section, looking north-north-west, showing sand layer 201 below bedding layer 200, with natural sand 202 at the base of the sequence.

Document Control

Element	Name	Date
Report prepared by:	Chris Clay	31/07/2009
Illustrations prepared by:	Maria Piirainen	30/07/2009
Draft report edited by:	Mark Allen	03/08/2009
Draft report submitted to Jacobs:		03/08/2009
Draft report approved by Jacobs:	Jonathan Dempsey	19/08/2009
Final report produced by:	AAL 2009037	20/08/2009

In line with AAL environmental policies, this document is printed double sided on 100% recycled paper.

Summary

Allen Archaeology Limited was commissioned by Jacobs Engineering UK Limited, on behalf of North Yorkshire County Council to undertake a programme of archaeological monitoring and recording during the excavation of trial pits and geotechnical boreholes at Norton Community Primary School in Norton-on-Derwent, North Yorkshire.

The site is located within an area of potential archaeological importance. A Roman fort and civilian *vicus* was occupied through out the Roman period on the north side of the River Derwent, with the area of Norton being developed in the later Roman period, as a planned settlement with a grid pattern of streets. Pottery kilns and burials have been excavated to the south-west of the school.

The watching brief exposed several layers of demolition material associated with various episodes of construction of the existing school buildings. These overlay a brown sand layer that may be associated with the former Roman settlement that extended over much of the area of the modern towns of Malton and Norton.

1.0 Introduction

- 1.1 Allen Archaeology Limited (hereafter AAL) was commissioned by Jacobs Engineering UK Limited, on behalf of their client, North Yorkshire County Council, to carry out an archaeological watching brief during geotechnical works at Norton Community Primary School in Norton-on-Derwent, North Yorkshire.
- 1.2 The site monitoring, recording and reporting conforms to current national guidelines, as set out in the Institute for Archaeologists '*Standards and guidance for archaeological watching briefs*' (IfA 1999), and a specification prepared by Jacobs Engineering UK Limited (see Appendix 4).
- 1.3 The archive will be submitted to the Yorkshire Museum within six months of the completion of the project.

2.0 Site Location and Description (Figures 1 – 3)

- 2.1 Norton-on-Derwent is situated in the county of North Yorkshire, approximately 27km north-east of York. The proposed development area is on the southern edge of the town's historic core, at the south end of Grove Street, and east of Langton Road. The site centres on NGR SE 7949 7119 and lies at a height of approximately 24m above Ordnance Datum.
- 2.2 The local geology comprised drift deposits of sand and gravel of uncertain origin, which overlay a solid geology of undifferentiated Kimmeridge Clay and Amptill Clay (British Geological Survey 2000).

3.0 Planning Background

- 3.1 As part of the government's Primary Capital Programme, North Yorkshire County Council is proposing to undertake improvements to a number of primary schools, including the present site. Jacobs Engineering UK Limited is currently preparing environmental reports to support a planning application in respect of the redevelopment of Norton School. It was agreed with Lucie Hawkins, Development Control Archaeologist for North Yorkshire County Council, that an archaeological watching brief be undertaken during the site investigation works. The results of this work are to be submitted as part of the environmental reports supporting a future planning application.

4.0 Archaeological and Historical Background

- 4.1 Prehistoric activity in the area is represented by the discovery of numerous residual worked lithic implements of Mesolithic to Bronze Age date, recovered during excavations of the Roman vicus, immediately to the north of the River Derwent (Wenham and Heywood 1997). Bronze Age barrows are shown on a plan of 1825, c. 500m to the north-north-west, which have now been levelled (North Yorkshire Historic Environment Record (hereafter NYHER) Reference 3002).
- 4.2 A number of pot boilers, quern stones and two carved chalk figurines from these excavations also indicate some form of settlement activity in the Iron Age period, prior to the Roman occupation (Wenham 1974).
- 4.3 The small towns of Malton and Norton saw extensive activity during the Romano-British period. A temporary fort was established on the north side of the River Derwent c.AD 69, to be replaced by a more permanent establishment around ten years later. This fort was reinforced

with stone walls in the early second century, and was occupied well into the fifth century AD, witnessing several episodes of abandonment, disrepair and rebuilding throughout the intervening years (Wenham and Heywood 1997, Wenham 1974).

- 4.4 A *vicus*, or unplanned civilian settlement, developed outside the fort during the second century AD. Excavations have uncovered the foundations of stone buildings in the vicus, including evidence for hypocaust heating systems, piped water supplies, and floors of *opus signinum* (Roman concrete). One building was found to contain mosaic pavements. The settlement had defensive walls to the east and west, and gradually expanded southwards down to the river, where housing was built on land reclaimed by the dumping of large quantities of domestic refuse (Wenham 1974).
- 4.5 In the area of Norton, south of the River Derwent, a probable planned settlement appears to have developed in the later Romano-British period. Large numbers of finds have been recovered throughout the town, although few are accurately mapped. The evidence does suggest a grid pattern of streets developed however, with one of these roads broadly following the line of Langton Road, to the west of the site. The Roman road headed towards a villa site at Langton, c.3km to the south-east, and appears to have been flanked by numerous inhumation and cremation cemeteries of Roman date (Wenham and Heywood 1997, Wenham 1974).
- 4.6 There was also a major pottery industry in Norton in the Romano-British period. Numerous kilns have been excavated around Norton, including a concentration off Howe Road, c.400m to the south-east of the site, which were producing Cranbeck-type greywares during the 3rd century AD. After abandonment of the kilns the area was given over to burials in the 4th century (Wenham 1974). Further inhumations and cremations of Roman date have been recorded off Wood Street, c.100m north of the school (NYHER References 2782, 2784 and 2820).
- 4.7 Soon after the Norman Conquest of 1066, a motte and bailey castle was built in the south-west corner of the Roman fort, to be replaced by a stone castle in the late 12th century. The castle was sacked by Robert the Bruce in 1322, and finally demolished around 1600 by Ralph, Lord Eure in order to make way for his newly built Jacobean mansion (NYHER Reference 2525, http://www.castleuk.net/castle_lists_north/100/maltoncastle.htm).
- 4.8 A hospital dedicated to St. Nicholas was established on the south side of the river by Henry II (1154 – 1189), and administered by Malton Priory. This is believed to have been located at the head of the bridge over the Derwent, c.400m to the north-west of the current site (NYHER Reference 2864).
- 4.9 Historic map evidence suggests that during the mid 19th century, the site was open agricultural land on the fringes of the settlement until the construction of the school in the early 20th century.

5.0 Methodology

- 5.1 The groundworks were carried out on Monday 20th and Tuesday 21st July 2009 and were monitored at all times by AAL Director Chris Clay. The location of all test pits was provided to the sub-contractors by Jacobs Engineering UK Limited. The groundworks comprised a series of six test pits excavated abutting the walls of the existing school buildings to investigate the depth and nature of the foundations. These test pits measured approximately 0.50m x 0.50m, and were excavated to an average depth of c.1.2m. Seven boreholes were also excavated to recover samples for environmental testing and examine the geological profile of the site. In each borehole, except for Boreholes 1 and 4, a c. 0.30m x 0.30m pit was hand excavated to a depth of c.1.2m. Boreholes 1 and 4 were drilled directly from the ground surface as there was no breaker available on site at the time to break through the tarmac surface. The boreholes were subsequently investigated using a track mounted percussive sampler to a depth of c.6m to

further determine the stratigraphic sequence below the limit of the hand excavated area. A single soakaway pit was also excavated to test water permeability.

- 5.2 During excavation, all exposed plan and section surfaces were examined and periodically cleaned (where possible); in order to determine the stratigraphic sequence and to determine if any archaeological features had been revealed. Spoil from the excavations was examined for finds recovery. Obviously modern finds were noted and discarded, while all other finds were retained for specialist assessment. Each context was recorded on pro-forma AAL context record sheets, accompanied by section drawings at appropriate scales (1:20). A full photographic record was maintained in monochrome and colour slide formats, and selected prints have been included as an appendix to this report (Appendix 1).

6.0 Results (Figures 4 and 5)

6.1 Soakaway Pit (Figure 4)

- 6.1.1 A 1m square soakaway pit was excavated on the northern edge of the school playing field, to a depth of c.0.75m. The uppermost deposit, 01, was a 0.32m thick modern topsoil layer comprising dark grey compact sand with occasional modern brick and stone fragments. This sealed a 0.2m thick layer of grey brown sand 02, with occasional modern brick inclusions, representing a possible levelling layer associated with the construction of the school playing field.
- 6.1.2 Below 02 was 03, a possible buried soil of very dark grey silty sand, which was 0.3m thick and sealed a possible subsoil horizon 04, of compact brown sand with occasional chalk flecks, which extended below the limit of excavation.

6.2 Test Pits (Figure 4)

- 6.2.1 Test Pit 1 was located against the north wall of an outbuilding adjacent to the school reception. Below the modern tarmac surface was a 0.1m thick crushed limestone bedding layer, 10, over a 0.2m thick layer of demolition material, 11, comprising coarse dark grey/brown sand with frequent stone and concrete fragments. This sealed 12, a layer of brown sand with occasional small stones, representing a possible former subsoil, which extended below the limit of excavation.
- 6.2.2 Test Pit 2 was located against the east side of the main school block. The modern tarmac sealed a 0.1m thick crushed limestone bedding layer, 20, over a c.0.75m thick brown sand layer, 21, which in turn sealed the natural light brown sand, 22 at the base of the sequence.
- 6.2.3 Test Pit 3 was located against the east wall of the main school block, west of the kitchen. Below the tarmac surface and a 0.1m thick crushed limestone bedding layer, 30, was a brown sand layer, 31, which was c.0.55m thick and sealed the natural sand, 32.
- 6.2.4 Test Pit 4 was located against the north wall of the south-eastern classroom block. The stratigraphic profile comprised the modern tarmac surface, over a 0.14m thick crushed limestone bedding layer, 40. This sealed a 0.55m thick layer of brown sand, 41, which in turn covered the natural light brown sand, 42.
- 6.2.5 Test Pit 5 was located against a north-north-west facing wall at the west side of the main school block. The modern tarmac sealed a 0.1m thick crushed limestone bedding layer, 50, over a c.0.2m thick demolition layer of coarse dark grey sand with occasional brick and stone

fragments, 51. This in turn sealed the same brown sand layer, 52, observed in the other test pits, which extended below the limit of excavation.

- 6.2.6 Test Pit 6 was located against the westernmost wall of the main school block. The modern tarmac surface sealed the 0.1m thick crushed limestone bedding layer 60, over brown sand 61, which was 0.45m thick and overlay the natural sand, 62.

6.3 Boreholes (Figure 5)

- 6.3.1 Borehole 1 was located to the south of the north-western classroom block. The borehole was drilled directly from the ground surface and so the stratigraphic profile could not be examined in detail. Examination of the first 1m core excavated suggested that the profile was similar to the test pits, with a crushed limestone bedding layer below the modern tarmac, and the natural sand at its base.
- 6.3.2 Borehole 2 was located in a courtyard area east of the north-western classroom block. The profile below the modern tarmac comprised a 0.12m thick crushed limestone bedding layer, 200, over a 0.18m thick modern demolition layer of coarse grey sand with frequent brick, stone and concrete fragments, 201. This in turn sealed another modern demolition layer of dark brown/grey sand with occasional brick, stone and tile, 202, approximately 0.14m thick, which directly overlay the natural light yellowish/brown sand, 203.
- 6.3.3 Borehole 3 was located just to the north of the school reception and office block. Below the concrete paving slab surface a 0.1m thick crushed limestone bedding layer, 300, overlay a possible bedding layer of pale yellow/grey sand, 301, which was 0.2m thick. Below 301 was a c.0.2m thick demolition layer of dark grey/brown sand with moderate modern brick and stone fragments, sealing brown sand layer 303, which extended below the base of the hand excavated pit.
- 6.3.4 Borehole 4 was to the south of the main school block and west of the south-western classroom block. The borehole was drilled directly from the ground surface and so the stratigraphic profile could not be examined in detail. Examination of the first 1m core excavated suggested that the profile comprised a bedding layer for the modern tarmac at the top of the sequence, with the natural sand occurring at the base of the sequence.
- 6.3.5 Borehole 5 was located to the east of the main school block and west of the kitchen. Below the modern tarmac the sequence comprised a 0.19m thick crushed limestone bedding layer 500, over a 0.44m thick layer of brown sand, 501, sealing the natural light brown sand 502.
- 6.3.6 Borehole 6 was located on a grassed area at the east edge of the site, east of the kitchen. The uppermost deposit, 600, was a 0.15m thick topsoil horizon of very dark grey/brown silty sand. This sealed 601, a 0.6m thick possible ground raising/levelling deposit of dark grey/brown silty sand with occasional small brick and stone fragments. Below 601 was 602, a brown sand with occasional small stones 602, extending below the limit of hand excavation.
- 6.3.7 Borehole 7 was located in a grassed area to the north of a temporary classroom block and south of the kitchen. The modern topsoil 700 was a 0.5m thick very dark brown silty sand. This sealed 701, a 0.3m thick brown sand, which sealed the natural light brown sand, 702.

7.0 Discussion and conclusions

- 7.1 The watching brief exposed a largely similar sequence throughout the site with the uppermost deposits consisting of the modern tarmac surface and underlying bedding layers sealing a number of demolition/levelling layers associated with various phases of construction at the school.
- 7.2 Throughout the majority of the test pits and boreholes, a substantial deposit of brown sand, up to 0.75m thick was recorded, overlying the natural sand. No dating evidence was recovered from this deposit, so it was not possible to ascertain how the sand related to the extensive Roman settlement that occupied much of this area, or indeed how it formed.
- 7.3 In conclusion therefore, the excavated areas have identified only modern topsoil deposits, and deposits associated with the construction of the school, as well as an undated sand layer, all of which are considered to be of negligible importance.

8.0 Effectiveness of methodology

- 8.1 The watching brief methodology was appropriate to the small scale of the site investigations. The monitoring and recording exposed a negligible archaeological potential within the excavated areas, although the limited extent of the investigated areas does not preclude the possibility of archaeological deposits being present elsewhere on the site.

9.0 Acknowledgements

- 9.1 Allen Archaeology Limited would like to thank Jacobs Engineering UK Limited for this commission. Thanks also go to the staff of Norton School, and the site contractors from Ian Farmer Associates for their cooperation during the fieldwork.

10.0 References

British Geological Survey, 2000, *Pickering. England and Wales Sheet 53. Solid and Drift Geology. 1:50,000 Provisional Series*, Keyworth, Nottingham: British Geological Survey

IfA., 1999, *Standards and guidance for archaeological watching briefs*. Reading, Institute for Archaeologists

Manby, T., Moorhouse S. and Ottaway P., 2003, 'The Archaeology of Yorkshire. An assessment at the beginning of the 21st century', *Yorkshire Archaeological Society. Occasional Paper no. 3*, Yorkshire Archaeological Society, Leeds

Manby T., King A. and Vyner B., 2003, 'The Neolithic and Bronze Ages: a time of early agriculture', in Manby, Moorhouse and Ottaway, pp. 35 – 113

Ottaway, P., 2003, 'The archaeology of the Roman period in the Yorkshire region: a rapid resource assessment', in Manby, Moorhouse and Ottaway, pp. 125 – 150

Wenham, P., 1974, *Derventio (Malton). Roman fort and civilian settlement*, Cameo Books, Huddersfield

Wenham, P., and Heywood, B., 1997, *The 1968 to 1970 excavations in the vicus at Malton, North Yorkshire*, Yorkshire Archaeological Report No. 3, Yorkshire Archaeological Society, Leeds

11.0 Site archive

- 11.1 The documentary archive is currently in the possession of Allen Archaeology Limited. It will be submitted to The Yorkshire Museum within six months of the completion of the report. A summary of the contents of the archive is included in Appendix 3.

Appendix 1: Colour Plates



Plate 1: General working shot during the drilling of Borehole 3. Looking south-south-east from the main entrance



Plate 2: Soakaway pit, north-north-west facing section, looking south-south-east, showing modern topsoil layer 01, sealing possible levelling layer 02, and buried topsoil and subsoil horizons 03 and 04.



Plate 3: Test Pit 2, south-south-east facing section, looking north-north-west, showing sand layer 201 below bedding layer 200, with natural sand 202 at the base of the sequence.

Appendix 2: Context Summary List

Context No.	Type	Description	Interpretation
Soakaway			
01	Layer	Compact very dark grey sand, occ. brick and stone	Modern playing field topsoil
02	Layer	Compact dark grey/brown sand	Levelling layer for playing field
03	Layer	Very dark grey silty sand	Possible buried soil horizon
04	Layer	Mid brown compact sand, occ. chalk flecks	Subsoil
Test Pit 1			
10	Layer	Crushed sub-angular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
11	Layer	Coarse dark grey/brown sand, frequent stone and concrete fragments	Modern demolition material
12	Layer	Brown sand, occasional, small stones	Possible former soil horizon
Test Pit 2			
20	Layer	Crushed sub-angular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
21	Layer	Brown sand, occasional small stones	Possible former soil horizon
22	Layer	Light yellowish brown sand, occ. small stones	Natural sand
Test Pit 3			
30	Layer	Crushed sub-angular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
31	Layer	Brown sand, occasional, small stones	Possible former soil horizon
32	Layer	Light yellowish brown sand, occ. small stones	Natural sand
Test Pit 4			
40	Layer	Crushed sub-angular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
41	Layer	Brown sand, occasional, small stones	Possible former soil horizon
42	Layer	Light yellowish brown sand, occ. small stones	Natural sand
Test Pit 5			
50	Layer	Crushed sub-angular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
51	Layer	Very dark grey coarse sand, occasional brick and stone	Demolition layer
52	Layer	Brown sand, occasional small stones	Possible former soil horizon
Test Pit 6			
60	Layer	Crushed sub-angular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
61	Layer	Brown sand, occasional small stones	Possible former soil horizon
62	Layer	Light yellowish brown sand, occ. small stones	Natural sand
Borehole 2			
20	Layer	Crushed subangular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
21	Layer	Coarse grey sand, frequent brick, stone, concrete	Modern demolition layer
22	Layer	Dark brown/grey sand, occ. brick, stone	Modern demolition layer
23	Layer	Light yellowish brown sand, occ. small stones	Natural sand
Borehole 3			
30	Layer	Crushed sub-angular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
31	Layer	Pale yellow/grey sand	Bedding layer?
32	Layer	Dark brown/grey sand, moderate brick, stone	Modern demolition layer
33	Layer	Brown sand, occasional small stones	Possible former soil horizon
Borehole 5			
50	Layer	Crushed subangular limestone in coarse pale yellow sand matrix	Bedding layer for modern tarmac
51	Layer	Brown sand, occasional, small stones	Possible former soil horizon
52	Layer	Light yellowish brown sand, occ. small stones	Natural sand
Borehole 6			
60	Layer	Very dark grey/brown silty sand	Modern topsoil
61	Layer	Dark grey/brown silty sand, occ. small brick and stone	Ground raising/levelling layer
62	Layer	Brown sand, occasional small stones	Possible former soil horizon
Borehole 7			
70	Layer	Very dark brown silty sand	Modern topsoil
71	Layer	Brown sand, occasional small stones	Possible former soil horizon
72	Layer	Light yellowish brown sand, occasional. small stones	Natural sand

Appendix 3: Archive Summary

The archive includes the following drawn and written records and photographs:

Drawing sheets: 1 x A3 permatrace sheets
Photographic record sheets: 1 x A4 sheet
Daily record sheets: 2 x A4 sheets
Context summary lists: 1 x A4 sheet
Watching brief record sheets: 13 x A4 sheets
Black and white film: 1 x 36 exposure film
Colour film: 1 x 36 exposure film
Miscellaneous material: 1 x AAL Risk Assessment

No finds were recovered from this site.

APPENDIX 4:

WATCHING BRIEF SPECIFICATION

North Yorkshire County Council

Primary Capital Programme

Archaeological Watching Brief on Ground Investigation Works

Specification

July 2009

Document control sheet

Client: North Yorkshire County Council
 Project: North Yorkshire County Council Primary Capital Programme
 Job No: **BAE08604, BAE08605, BAE08607**

Title: Archaeological Watching Brief on Geotechnical Investigations - Specification

Originated by Checked by Reviewed by Approved by

ORIGINAL	NAME Jonathan Dempsey	NAME Dan Johnston	NAME James Marshall	NAME Clive Paxton
DATE 05/02/2009	SIGNATURE <i>Jonathan Dempsey</i>	SIGNATURE	SIGNATURE	SIGNATURE
Document status: Draft for internal review				

REVISION 1	NAME	NAME	NAME	NAME
DATE	SIGNATURE	SIGNATURE	SIGNATURE	SIGNATURE
Document status: Final for issue				

REVISION 2	NAME	NAME	NAME	NAME
DATE	SIGNATURE	SIGNATURE	SIGNATURE	SIGNATURE
Document status				

Copyright Jacobs Engineering U.K. Limited. All rights reserved.

This document has been prepared by a division, subsidiary or affiliate of Jacobs Engineering U.K. Limited ("Jacobs") in its professional capacity as consultants in accordance with the terms and conditions of Jacobs' contract with the commissioning party (the "Client"). Regard should be had to those terms and conditions when considering and/or placing any reliance on this document. No part of this document may be copied or reproduced by any means without prior written permission from Jacobs. If you have received this document in error, please destroy all copies in your possession or control and notify Jacobs.

Any advice, opinions, or recommendations within this document (a) should be read and relied upon only in the context of the document as a whole; (b) do not, in any way, purport to include any manner of legal advice or opinion; (c) are based upon the information made available to Jacobs at the date of this document and on current UK standards, codes, technology and construction practices as at the date of this document. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Jacobs has been made. No liability is accepted by Jacobs for any use of this document, other than for the purposes for which it was originally prepared and provided. Following final delivery of this document to the Client, Jacobs will have no further obligations or duty to advise the Client on any matters, including development affecting the information or advice provided in this document.

This document has been prepared for the exclusive use of the Client and unless otherwise agreed in writing by Jacobs, no other party may use, make use of or rely on the contents of this document. Should the Client wish to release this document to a third party, Jacobs may, at its discretion, agree to such release provided that (a) Jacobs' written agreement is obtained prior to such release; and (b) by release of the document to the third party, that third party does not acquire any rights, contractual or otherwise, whatsoever against Jacobs and Jacobs, accordingly, assume no duties, liabilities or obligations to that third party; and (c) Jacobs accepts no responsibility for any loss or damage incurred by the Client or for any conflict of Jacobs' interests arising out of the Client's release of this document to the third party.

Contents

1.	Introduction.....	1-2
1.1	Background to the works	1-2
1.2	General Requirements	1-2
2.	Methodology for Watching Brief.....	2-3
2.1	Archaeological Watching Brief	2-3
2.2	Site Archive	2-3
2.3	Reporting	2-5
3.	Standards and Guidance.....	6

Figures

Figure 1 – Location of Barrowcliff Community Primary School

Figure 2 – Location of Hinderwell Community Primary School

Figure 3 – Location of Norton Community Primary School

1. Introduction

1.1 Background to the works

- 1.1.1 As part of the government's Primary Capital Programme, North Yorkshire County Council is proposing the improvement of a number of primary schools in the County, with a total of £12 million to be spent by April 2010. Jacobs is preparing environmental reports to support planning applications at four schools, notably Hinderwell, Barrowcliff and Friarage Primary Schools (all in Scarborough) and Norton Primary School in Norton.
- 1.1.2 It has been agreed with Lucie Hawkins, Development Control Archaeologist, North Yorkshire County Council (the Curator) that an archaeological watching brief is required during Site Investigation (SI) works at the following schools:
- Barrowcliff Community Primary School;
Hinderwell Community Primary School; and,
Norton Community Primary School.
- 1.1.3 The locations of these schools are shown on Figures 1 to 3.
- 1.1.4 The Norton SI will take place on the 20th and 21st of July 2009
- 1.1.5 Information on the design of the SI works at this stage is very limited. However, it is understood that the SI will comprise a mixture of boreholes and test pits. The test pits are likely to be hand-dug, and will be positioned against existing walls to allow inspection of foundations. It is not likely that any pits would exceed a depth of 1.2m.

1.2 General Requirements

- 1.2.1 The contractor inform North Yorkshire County Council's Historic Environment Team at least prior to the start of works on site.
- 1.2.2 The work shall be undertaken in accordance with the requirements of:
- the Institute for Archaeologists, 1994, Standard and Guidance for an Archaeological Watching Brief (Revised 2001 and 2008)
- English Heritage, 2002, Centre for Archaeology Guidelines for Environmental Archaeology; and
- English Heritage, 2004, Geoarchaeology: using earth sciences for understanding the Archaeological record.
- 1.2.3 This Specification is supplementary to these standards and guidance and all requirements of the standards and guidance shall apply.
- 1.2.4 The Contractor will be appointed by North Yorkshire County Council under the terms of the NYCC Framework Contract for Archaeological Services 2009-2013.

2. Methodology for Watching Brief

2.1 Archaeological Watching Brief

- 2.1.1 The archaeological watching brief shall be undertaken on all trial pits.
- 2.1.2 Stripping overburden and any associated excavations shall be carried out by the Geotechnical Contractor either by hand or using mechanical excavators fitted with toothless ditching buckets, and shall be continuously monitored by the watching brief archaeologist.
- 2.1.3 Where any remains are identified in the course of monitoring work, the watching brief archaeologist shall notify the Geotechnical Contractor, the Engineer's Representative in charge of the geotechnical investigations and shall investigate and record the remains by the methodology set out below:

Archaeological investigation and recording shall be undertaken in such a manner as to minimise the delay and disruption to the GI investigation; however, if necessary the archaeologist may instruct short suspensions of test-pit excavation, and may ask for backfilling to be delayed, to allow recording work to be undertaken;

Where archaeological deposits of minor or unclear significance are identified, the GI investigation may continue to the full intended depth;

Where the archaeological deposits are of greater significance, and in the judgement of the archaeologist, the completion of the investigation would cause an unacceptable impact, the archaeologist may instruct the abandonment of the trial pit, which may if necessary be re-sited and re-excavated subject to the approval of the Geotechnical Contractor, the Engineer's Representative and the relevant landowner;

Where available borehole logs will be examined and any relevant data included in the report.

- 2.1.4 Where structures, finds, features or deposits of archaeological interest are exposed, the watching brief archaeologist shall be afforded the opportunity to observe, clean assess, excavate by hand, sample and record them as appropriate.
- 2.1.5 Plans and sections of excavated features shall be produced at conventional scales.
- 2.1.6 All finds shall be retained and removed from the site and cleaned, catalogued and appropriately packaged.
- 2.1.7 If human remains are encountered and it is not possible for them to be left *in situ*, the appropriate procedures shall be adhered to, including notification of the Coroner and obtaining an appropriate Ministry of Justice license for their removal.

2.2 Site Archive

- 2.2.1 The site archive shall be transferred to the Yorkshire Museum.

- 2.2.2 Adequate resources shall be provided during fieldwork to ensure that all records are checked and internally consistent.
- 2.2.3 The Site Archive shall be prepared in accordance with the standards set out in Appendix 3 of MAP2 and the Yorkshire Museum's "Draft Deposition Strategy for Archaeological Excavation Archives".
- 2.2.4 The Site Archive shall contain all the data collected during the investigation, including all primary written documents, plans sections and photographs. It shall be quantified, ordered, indexed and internally consistent.
- 2.2.5 Archive consolidation shall be undertaken immediately following the conclusion of fieldwork.
- 2.2.6 The site record shall be checked, cross-referenced and indexed as necessary.
- 2.2.7 All retained finds shall be cleaned, conserved, marked and packaged as necessary to maintain the archive prior to transfer.
- 2.2.8 All retained finds shall be assessed and recorded using pro-forma recording sheets, by suitably qualified and experienced staff. Initial artefact dating shall be integrated with the site matrix.
- 2.2.9 The archive shall be assembled in accordance with the guidelines set out in English Heritage's Management of Archaeological Projects 2 (MAP2; paragraphs 4.9, 6.8 and 6.10 and Appendix 3) and Yorkshire Museum's "Draft Deposition Strategy for Archaeological Excavation Archives". In addition to the site records, artefacts, ecofacts and other sample residues, the archive shall contain:
- site matrices where appropriate;
 - a summary report synthesising the context records;
 - a summary of the artefact record; and
 - a summary of any other records or materials recovered.
- 2.2.10 The integrity of the primary field records shall be preserved and the Contractor shall create security copies in digital, fiche or microfilm format of all primary field records.

2.3 Reporting

2.3.1 The report shall be prepared in line with the requirements set out in North Yorkshire County Council's "Standard Written Scheme of Investigation for Limited Archaeological Recording ("Watching Brief")" (2006), and shall include as a minimum:

planning or administrative details of the project;

a summary of the works carried out;

a description and interpretation of the findings, an assessment of the importance of the archaeology including its historical context where appropriate;

General and detailed plans at appropriate scales, showing the location of each trial pit accurately positioned on an up-to-date Ordnance Survey base;

Sections of trial pit and at appropriate scales, with keys;

Detailed plans and sections of individual features where necessary, all scales used on any drawings should be standard scales such as would appear on a normal scale rule;

And catalogues of finds, features and primary records.

2.3.2 A draft report shall be completed within two weeks of the completion of fieldwork. One copy of a complete draft report will be submitted in the first instance for review/checking by the Engineer who will also consult the Curator and EHRSA during the review period. In finalising the report, the Contractor will take into account any comments and remedy any faults identified by the Engineer. The Contractor should note that 5 bound copies, one unbound copy and a digital copy (including drawings) of the final report will be required. The finalised report will be submitted to the Engineer within five working days of receipt of the Engineer's comments on the draft report.

2.3.3 In addition, one bound copy and a digital copy in PDF format of the final report will be deposited with the Curator. Digital data derived from the report will be provided in a format suitable for inclusion into the County HER for record enhancement purposes, and the Contractor shall liaise with the Curator to discuss the nature and format of the material required.

2.3.4 North Yorkshire Historic Environment Record (HER) supports the Online Access to Index of Archaeological Investigations (OASIS) Project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large scale developer funded fieldwork. On completion of the report, the contractor will make a copy accessible to the wider research community by submitting it to the OASIS Project.

3. Standards and Guidance

- Brown, Duncan H, 2007, Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation, Archaeological Archives Forum
- English Heritage, 1991, Management of Archaeological Projects, Second Edition (MAP2)
- English Heritage, 1996, Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood
- English Heritage, 2002, Centre for Archaeology Guidelines for Environmental Archaeology
- English Heritage, 2004, Geoarchaeology: using earth sciences for understanding the Archaeological record
- Garratt-Frost, Stephen, 1992, "The Law and Burial Archaeology", IFA Technical Paper No. 11.
- Institute for Archaeologists 1990 (revised 1997) Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology
- Institute for Archaeologists, 1985, (revised to 2008) Code of Conduct
- Institute for Archaeologists, 1994, (revised 2001 and 2008) Standard and Guidance for an Archaeological Watching Brief
- Institute for Archaeologists, 2001, Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Material (Revised 2008)
- Institute for Archaeologists, 2008, (Interim) Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives
- McKinley, Jacqueline I and Roberts, Charlotte, 1993, Excavation and post-excavation treatment of cremated and inhumed human remains, IFA Technical Paper No. 13
- Museums and Galleries Commission, 1992, Standards in the museum care of archaeological collections
- North Yorkshire County Council, 2006, Standard Written Scheme of Investigation for Limited Archaeological Recording ("Watching Brief")
- United Kingdom Institute for Conservation, 1990, Guidelines for the preparation of Excavation Archives for long-term storage
- The York Museums Trust, No Date, Draft Deposition Strategy for Archaeological Excavation Archives

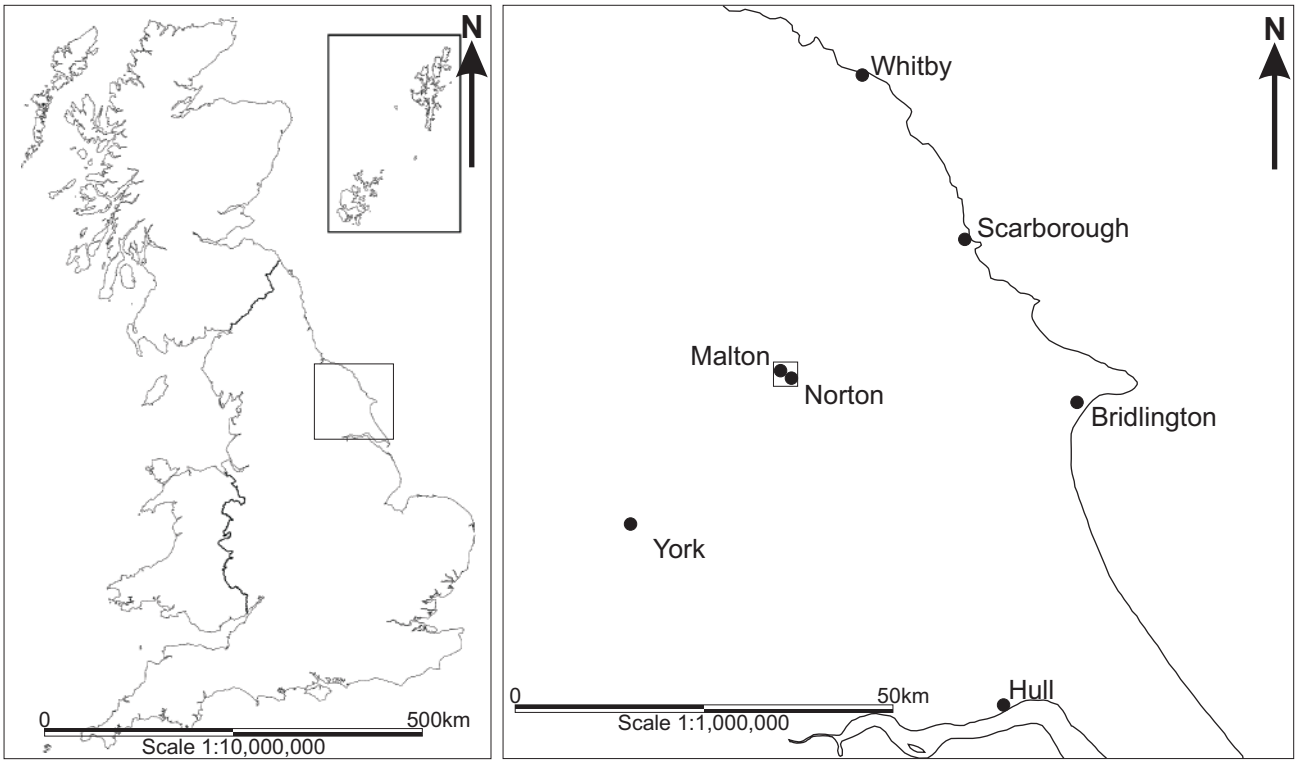


Figure 1: Location map with the school grounds outlined in red at scale 1:25,000
 Crown Copyright 2006. All rights reserved. Licence Number 100047330

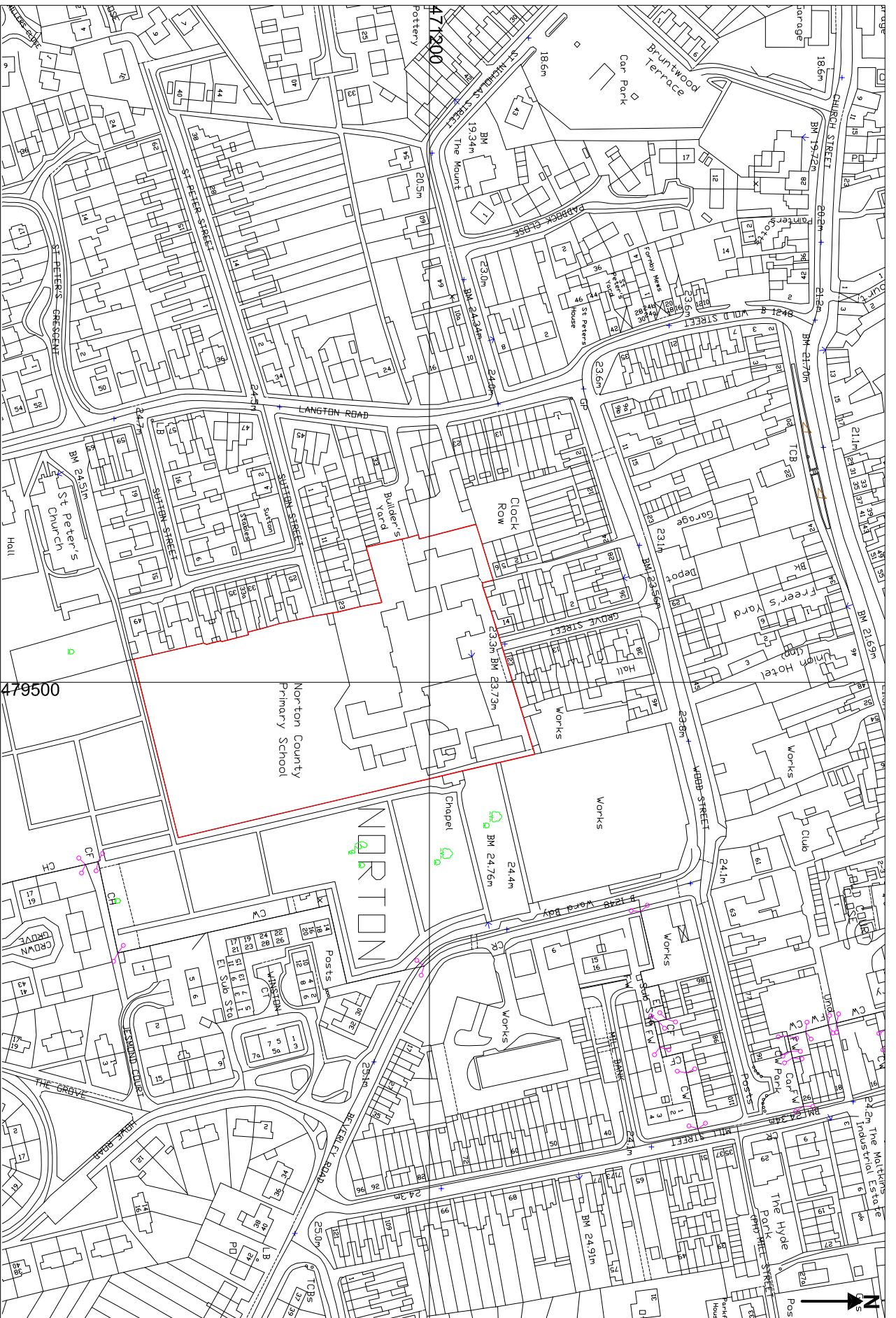
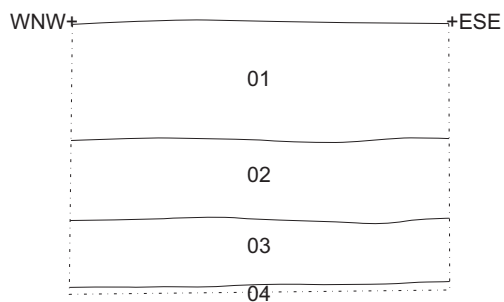


Figure 2: Site location at scale 1:2500, with the school grounds outlined in red

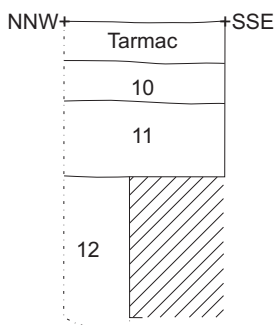


Figure 3: Site plan, showing location of Soakaway Pit, Test Pits (TP) and Boreholes (BH) at scale 1:1000

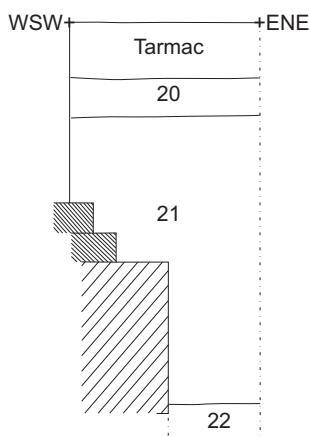
Soakaway Pit
SSW facing section



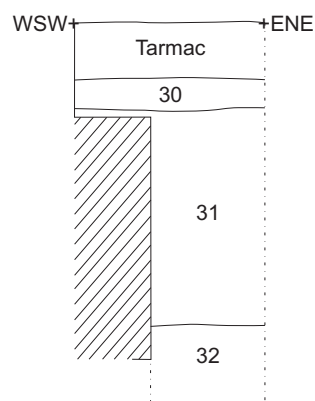
TP 1
WSW facing section



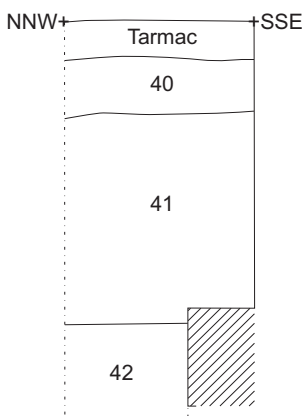
TP 2
SSE facing section



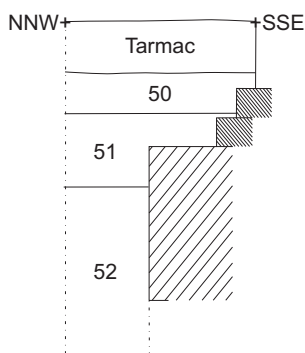
TP 3
SSE facing section



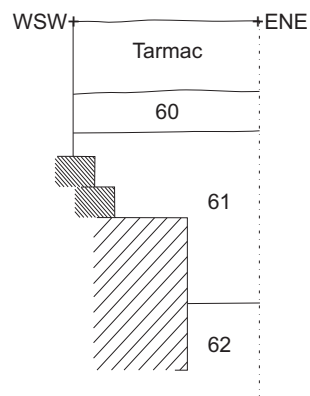
TP 4
WSW facing section



TP 5
WSW facing section



TP 6
SSE facing section



Key	
—	Edge of context
⋯	Limit of excavation
▨	Concrete footings
▩	Brick footings

Figure 4: Soakaway and Test Pit sections at scale 1:20. Located on Figure 3

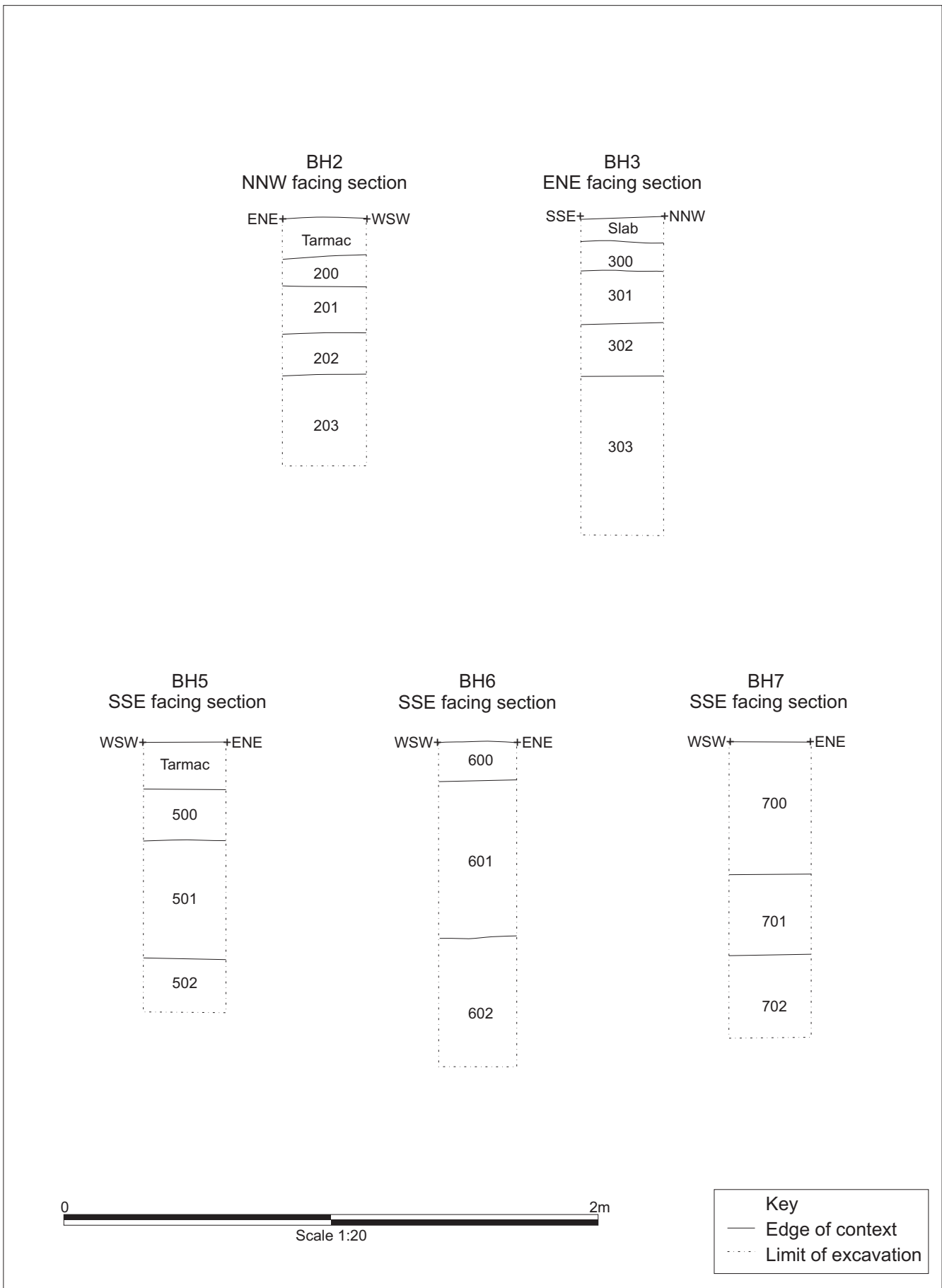


Figure 5: Borehole sections at scale 1:20. Boreholes located on Figure 3