

**ARCHAEOLOGICAL INVESTIGATIONS AT
1-7 WESTGATE ROAD & ARCHES 23/24 QUEENS LANE,
NEWCASTLE-UPON-TYNE, TYNE AND WEAR**

Assessment Report

**Archaeological Investigations at 1-7 Westgate Road & Arches 23/24
Queens Lane, Newcastle-upon-Tyne, Tyne and Wear**

Assessment Report

Central National Grid Reference: NZ 2497 6387

Site Code: WEG 09

Commissioning Client (on behalf of Network Rail Infrastructure Limited):

**C. Spencer Limited
Waters Edge Visitors Centre
Water Edge
Malkiln Road
Barton upon Humber
North Lincolnshire
DN18 5JR**

Tel: 01652 631 650



Contractor:

**Pre-Construct Archaeology Limited
Northern Office
Unit N19a Tursdale Business Park
Durham
DH6 5PG**

Tel: 0191 377 1111



**© Pre-Construct Archaeology Limited
July 2010**

This report is protected by copyright. The report and the information contained herein are and remain the sole property of Pre-Construct Archaeology Limited and are provided on a single site multi-user basis. If provided in paper form, the report may be utilised by a number of individuals within a location, but copying is prohibited under copyright. If provided in an electronic form, the report may be utilised in a shared server environment, but copying or installation onto more than one computer is prohibited under copyright and printing from electronic form is permitted for own, single location, use only. Multiple printing from electronic form for onward distribution is prohibited under copyright. Further distribution and uses of the report either in its entirety or part thereof in electronic form is prohibited without prior consent from Pre-Construct Archaeology Limited.

Pre-Construct Archaeology Limited has made every effort to ensure the accuracy of the content of this report. However, Pre-Construct Archaeology Limited cannot accept any liability in respect of, or resulting from, errors, inaccuracies or omissions herein contained.

CONTENTS

List of Figures and Plates

page

PART A: PROJECT SUMMARY

1. NON-TECHNICAL SUMMARY	1
2. INTRODUCTION	3
3. AIMS AND OBJECTIVES	14
4. METHODOLOGIES	17
5. PHASED SUMMARY OF THE ARCHAEOLOGICAL SEQUENCE	22

PART B: DATA ASSESSMENT

6. STRATIGRAPHIC DATA	64
7. ROMAN POTTERY	65
8. CERAMIC AND STONE BUILDING MATERIAL	68
9. SMALL FINDS	71
10. ARCHAEOLOGICAL MATERIAL	74
11. BIOLOGICAL REMAINS	76
12. POST-ROMAN POTTERY	88
13. SUMMARY DISCUSSION OF THE ARCHAEOLOGICAL FINDINGS	93
14. SUMMARY OF POTENTIAL FOR FURTHER ANALYSIS	99

PART C: ACKNOWLEDGEMENTS AND REFERENCES

15. ACKNOWLEDGEMENTS AND CREDITS	102
16. REFERENCES	103

APPENDICES

Appendix 1: Stratigraphic Matrix

Appendix 2: Context Index

Appendix 3: Plates

List of Figures and Plates

	<i>page</i>	
Figures		
Figure 1	Site Location	4
Figure 2	Areas of Investigation	5
Figure 3	The Site: its archaeological context, showing previous investigations	13
Figure 4	Phase 2a: Street 1 and associated frontage development	35
Figure 5	Phase 2b & 2c: Street 1 and associated frontage modifications	36
Figure 6	Phase 2d: Street 1 and associated frontage further modifications	37
Figure 7	Phase 2e: activity post-dating usage of Street 1	38
Figure 8	Phase 2e: sub-phasing in Trench 11	39
Figure 9	Phase 2f: Street 2 and associated frontage development	40
Figure 10	Phase 2f: later sub-phasing in Trench 11	41
Figure 11	Phase 3b: western part of site	45
Figure 12	Phase 3b: eastern part of site	46
Figure 13	Phase 4: western part of site	47
Figure 14	Phase 4: eastern part of site	48
Figure 15	Trenches 1-4 Sections	54
Figure 16	Trenches 5-9 Sections	55
Figure 17	Trench 10 Extension 1 Sections	56
Figure 18	Trench 10 Extension 2 Sections	57
Figure 19	Trench 10 Extension 3 Sections	58
Figure 20	Trench 10 Extension 4 Section	59
Figure 21	Trench 10 Section	60
Figure 22	Trench 10 East Section	61
Figure 23	Trench 11 Sections	62
Plates (Appendix 3)		
Plate 1	Wall [509], Trench 5	
Plate 2	Surface [10], Trench 10	
Plate 3	Surface [1079], Trench 10	
Plate 4	Surface [1079], Trench 10	
Plate 5	Surface [72], Trench 10	
Plate 6	Make-up layer [1033], Trench 10	
Plate 7	Section 21 (easternmost portion), Trench 10	
Plate 8	Clay surface [2082] and walls [2077] & [2078], Trench 11	
Plate 9	Detail of clay surface [2082], Trench 11	
Plate 10	Surface [2016], Trench 11	
Plate 11	Surface [2038], with quern SF104, Trench 11	

- Plate 12** 'Robber' cut [2017], Trench 11
- Plate 13** Detail of wall [2077], Trench 11
- Plate 14** Detail of wall [2078], Trench 11
- Plate 15** Mortar patching [2007], Trench 11
- Plate 16** Section 38, Trench 11
- Plate 17** Surface [2083] and walls [2077] & [2078], Trench 11
- Plate 18** Working shot, Trench 11

PART A: PROJECT SUMMARY

1. NON-TECHNICAL SUMMARY

- 1.1 A programme of archaeological investigation was undertaken intermittently between March and September 2009 by Pre-Construct Archaeology at 1-7 Westgate Road and Arches 23/24 Queens Lane, Newcastle-upon-Tyne, Tyne and Wear. The central National Grid Reference of the site is NZ 2497 6387. The work, commissioned by C. Spencer Limited on behalf of Network Rail Infrastructure Limited, was undertaken ahead of the interior refurbishment of the site, a series of accommodation arches associated with a railway viaduct east of Newcastle Central Station.
- 1.2 The archaeological work was required as a condition of planning permission for the refurbishment scheme. A field evaluation in 2007 identified the presence of important archaeological remains of Roman and medieval date at the site. Of particular note were remains of activity likely associated with the civilian settlement that developed to the west of *Pons Aelius*, the Roman fort which overlooked the River Tyne, in what is now central Newcastle. For the most part, archaeological remains at the site were to be preserved *in situ* through design of a new floor in the refurbishment scheme. However, all invasive groundworks were to be subject to archaeological monitoring and, where appropriate, archaeological excavation and recording was to be undertaken to preserve by record any important remains thus exposed.
- 1.3 The main part of the site comprised the interior of a row of seven railway arches fronting, to the north, onto Westgate Road. At the southern end of the easternmost arch were two additional arches fronting, to the south, onto Queens Lane. The westernmost of these had been adapted for use as an access corridor into the main part of the site. In sum, the archaeological work comprised: monitoring of machine removal of existing concrete floor slab throughout the site; hand excavation to a specified depth of a single 'service entry pit' (Trenches 1-7) within the frontage of each arch on Westgate Road, a single exploratory pit (Trench 8) along the line of the proposed main internal drainage route and a single 'service entry pit' (Trench 9) in the easternmost arch on Queens Lane; monitoring of machine excavation of modern overburden and then hand excavation to a specific depth in a west-east drainage trench (Trench 10) running through the southern part of the Westgate Road arches; the same in a connecting north-south drainage trench (Trench 11) running through the access corridor and beyond to meet existing drainage and also in an eastern branch serving the Queens Lane arches; monitoring of machine excavation of groundworks for other utilities in Westgate Road and Queens Lane.
- 1.4 The earliest deposit recorded on site was natural boulder clay (Phase 1a), representing the glacial 'drift' geology of the area, sealed by a sub-soil horizon (Phase 1b) pre-dating Roman activity. Analysis of the Roman sequence (Phase 2) of activity identified six main sub-phases, with Phases 2a, 2b, 2c and 2d representative of activity and structural development associated with the construction and usage of a north-south orientated street (Street 1). Phases 2e and 2f post-dated disuse of Street 1, with the later sub-phase associated with the use of an east-west orientated street (Street 2). The six Phase 2 sub-phases spanned the late 2nd/3rd century until the late 3rd/4th century and the archaeological remains thus represented are considered to represent part of the civilian *vicus* associated with the Roman fort of *Pons Aelius*, built in the late 2nd or early 3rd century and possibly the only fort added to the line of the Hadrian's Wall frontier after the reign of Hadrian.

- 1.5 Following the end of Roman activity, the site seems to have been abandoned (Phase 3a) until eventually being reoccupied during the medieval period (Phase 3b). Evidence for the re-development of the site during the late post-medieval period and into the early modern era (Phase 4) was recorded and comprised the remains of one or more 18th/19th century buildings, 19th century culverts and footings associated with the arches of the late 19th century railway viaduct. Existing surfaces and their make-up layers, along with a variety of services comprised the majority of modern activity (Phase 5).
- 1.6 This Assessment Report is divided into three parts. Part A, the Project Summary, begins with an introduction to the site, describing its location, geology and topography, as well summarising the planning and archaeological background to the project. The aims and objectives of the work are then set out, followed by full descriptions of the archaeological methodologies employed during both the fieldwork and the subsequent post-excavation work. This part concludes with an illustrated summary of the archaeological remains allocated to a series of phases of activity.
- 1.7 Part B, the Data Assessment, quantifies the written, graphic and photographic elements of the Site Archive and contains specialist assessments of all categories of artefactual and biological evidence, with recommendations for any further work in each case. This part then sets out an archaeological summary discussion before summarising the potential for further analysis of all elements of the collected project data.
- 1.8 Part C of the report contains acknowledgements and references. There are three appendices to the report, the third being a selection of photographs from the fieldwork.

2. INTRODUCTION

2.1 General Background

- 2.1.1 This report describes the methodologies and results of a programme of archaeological investigations undertaken intermittently between 2 March and 18 September 2009 by Pre-Construct Archaeology Limited (PCA) at 1-7 Westgate Road and Arches 23/24 Queens Lane, Newcastle-upon-Tyne, Tyne and Wear (Figure 1).
- 2.1.2 The archaeological work was commissioned by C. Spencer Limited (Spencer) on behalf of Network Rail Infrastructure Limited (Network Rail). It was undertaken prior to the refurbishment of the site, which comprises a series of accommodation arches associated with a railway viaduct in the historic centre of Newcastle.
- 2.1.3 The work was undertaken as a condition of planning permission on the recommendation of the Tyne and Wear County Archaeologist, taking advice from English Heritage. The archaeological potential of the site was established by an archaeological evaluation undertaken in 2007.¹ That work identified the presence of important archaeological remains relating to activity of Roman and medieval date across the site, which lies immediately to the west of the known site of the Roman fort of *Pons Aelius*, south of the probable line of Hadrian's Wall and within the medieval town walls.
- 2.1.4 The archaeological project herein described was designed according to the guidelines set out in *Management of Research Projects in the Historic Environment* (MoRPHE).² A Project Design for the archaeological investigations was prepared by PCA and approved by the County Archaeologist in advance of the fieldwork³ and then revised as required throughout the fieldwork.⁴ In line with MoRPHE guidelines, this Assessment Report sets out a formal review of the data collected during the fieldwork.
- 2.1.5 At the time of writing, the Site Archive, comprising written, drawn, and photographic records and all artefactual and biological material recovered during the investigations, is housed at the Northern Office of PCA, Unit N19a Tursdale Business Park, Durham, DH6 5PG. When complete, the Site Archive will be deposited with the Great North Museum, under the site code WEG 09.
- 2.1.6 The Online Access to the Index of Archaeological Investigations (OASIS) reference number is: preconst1-75178.

2.2 Site Location and Description

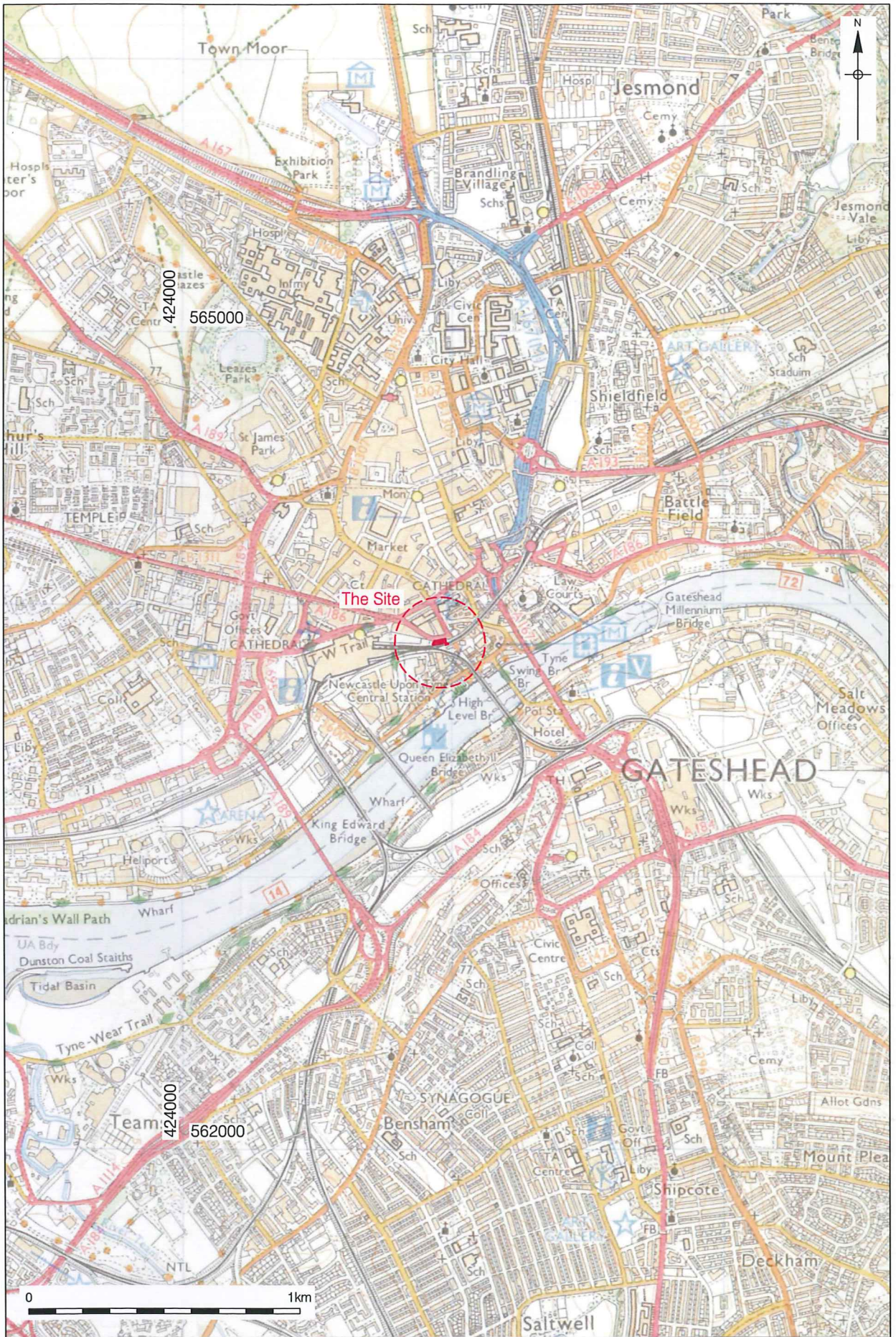
- 2.2.1 The site is located in the southern portion of Newcastle city centre, at National Grid Reference NZ 2497 6387 (Figure 1). It comprises a series of brick accommodation arches associated with the viaduct that carries the East Coast Mainline railway between Castle Garth and Newcastle Central Station. The site is bounded by Westgate Road to the north, St. Nicholas' Street to the east, Forth Street to the west and Queens Lane to the south (Figure 2).

¹ PCA 2007.

² English Heritage 2006.

³ PCA 2009a. This was the approved Project Design prior to the fieldwork, reference 'WEG08-09 ProjDesignv1.3 26Jan09'.

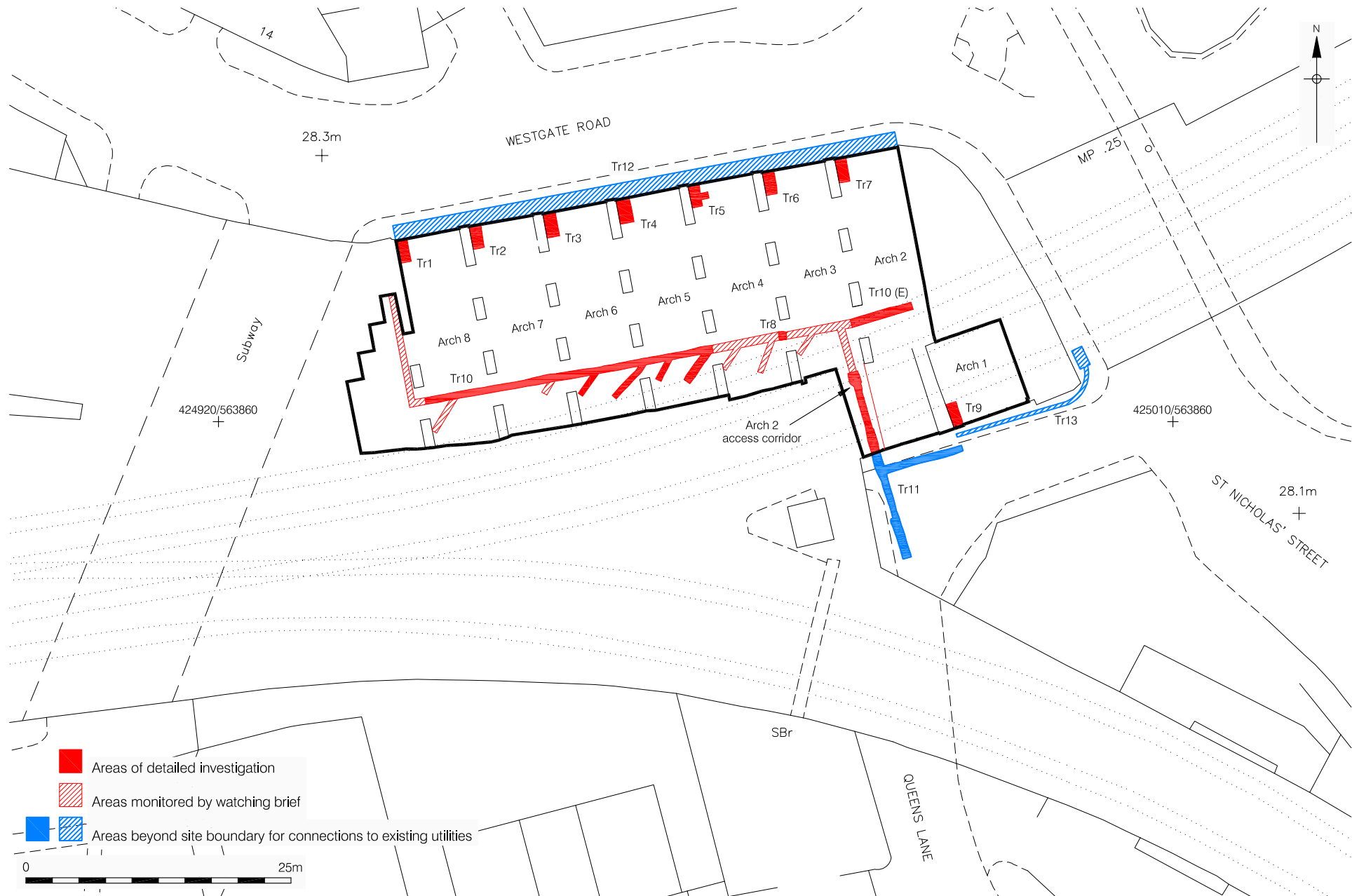
⁴ PCA 2009b. This was the final approved Project Design, reference is 'WEG09 ProjDesignv1.5 26May09'.



© Crown copyright 2005. All rights reserved. License number 36110309

© Pre-Construct Archaeology Ltd 2010

Figure 1
Site Location
1:20,000 at A4



©Pre-Construct Archaeology Ltd 2010

Figure 2
Areas of Investigation
1:500 at A4

- 2.2.2 The main part of the site covered an area of 1,261m². The majority comprises the interior of accommodation arches fronting, to the north, onto Westgate Road, this portion being 1-7 Westgate Road (Figure 2). The remainder comprises the interior of two other accommodation arches - Arches 23/24 Queens Lane - below the railway viaduct between Castle Garth and Central Station, fronting, to the south, onto Queens Lane. Adjacent to the westernmost of the Queens Lane arches was an access corridor into the main part of the site, with a brick wall separating the corridor from that arch.
- 2.2.3 Throughout the archaeological investigations, the easternmost arch on Queens Lane was known as 'Arch 1'. The seven arches on Westgate Road were known, sequentially from east to west, as 'Arches 2 to 8'. Lying to the immediate south of Arch 2 on Westgate Road, the westernmost of the Queens Lane arches was generally referred to during the project as being part of Arch 2. Due to structural problems, the majority of this arch was not refurbished as part of the project detailed herein; it remained boarded-up and effectively inaccessible throughout the work. To the west was the aforementioned access corridor (referred to the 'Arch 2 access corridor') into the main part of the site. The nomenclature of the arches as just described is used from hereon in this report (see Figure 2).
- 2.2.4 At the onset of the archaeological investigations, the existing ground surface throughout the majority of the site, that is the interior of the various arches, comprised concrete slab. Elements of the investigations were conducted on the road surface of Queens Lane, which comprised a combination of cobbles, granite setts and tarmac, and on the paving slab footways pavements of Westgate Road and St. Nicholas' Street, skirting the site to the north and east, respectively.

2.3 Geology and Topography

- 2.3.1 The 'solid' geology of Newcastle is Carboniferous Coal Measures comprising interbedded mudstones, sandstones and siltstones. The 'drift' geology of the part of the city in which the site lies is characterised by heterogeneous Glacial Till, with other glacial and fluvio-glacial deposits intermittently present.
- 2.3.2 The site lies on the north side of the River Tyne in the modern centre of Newcastle. As previously described, it comprises open space within accommodation arches associated with the viaduct carrying the East Coast Mainline railway into Newcastle Central Station. Ground level on Westgate Road, to the north of the site, stands at c. 28.30m OD. To the south-east, on St. Nicholas' Street, ground level lies at c. 28.10m OD, this reflecting ground build-up in recent centuries on the approach to the High Level Bridge, which opened in 1849. West of this and immediately to the south of the site, ground level drops sharply along Queens Lane, this being a truer indication of the natural fall of the valley side of the River Tyne.

2.4 Planning Background

- 2.4.1 The archaeological work herein described was undertaken as a condition of planning permission for the proposed refurbishment by Network Rail of 1-7 Westgate Road and Arches 23/24 Queens Lane. The condition was imposed on the recommendation of the Tyne and Wear County Archaeologist attached to the Historic Environment Section, Newcastle City Council and followed the undertaking of the aforementioned archaeological evaluation in 2007.

- 2.4.2 The site is located c. 60m to the west of a scheduled monument (No. 32753), comprising the site of an Anglo-Saxon cemetery, motte and bailey castle and the site of the Roman fort of *Pons Aelius*. To the north lies the proposed course of Hadrian's Wall, designated a UNESCO World Heritage Site (WHS). Given its location, it was considered likely that the site lay just beyond the western limit of the Roman fort, within the *vicus*, the associated civilian settlement.
- 2.4.3 The 2007 evaluation established that the existing concrete floor slab (and its make-up) at the site is directly underlain by important archaeological remains of the medieval period, beneath which are highly significant deposits, features and structures of the Roman period. Evidence for multi-phase Roman occupation during the 2nd and 3rd centuries AD was identified, with various types of remains being recorded, including structures, successive surfaces and pits. Whether the remains recorded during the evaluation related to *vicus* settlement close to the fort or to the military installation itself was not certain. The range of artefactual material recovered, even through the limited exposure of remains possible during the evaluation, was generally indicative of high status, possibly military, Roman period settlement. Given that the site lies within an area of considerable archaeological sensitivity, as described above, the nature of the remains encountered during the evaluation was not a surprise, although their extent and degree of survival was perhaps more unexpected, at a location that had been previously developed in such a way.
- 2.4.4 The evaluation had been undertaken on the recommendation of the County Archaeologist following government guidance set out in *Planning Policy Guidance Note 16: Archaeology and Planning* (PPG 16),⁵ as well as existing local planning policy. Newcastle City Council has various policies within its Unitary Development Plan (UDP) concerning archaeology and cultural heritage. Of particular relevance to the undertaking of the evaluation in 2007 was:

POLICY C04.2. WHERE A PROPOSAL MAY AFFECT A SITE OR AREA OF ARCHAEOLOGICAL INTEREST, THE DEVELOPER WILL BE REQUIRED TO SUBMIT AN APPROPRIATE ASSESSMENT OF ITS POTENTIAL IMPACT UPON THE ARCHAEOLOGICAL REMAINS AND WHERE NECESSARY UNDERTAKE AN ARCHAEOLOGICAL EVALUATION.

- 2.4.5 In 2008, Network Rail appointed Spencer to undertake, as Principal Contractor, the refurbishment scheme, with PCA, sub-contracted by Spencer, as the archaeological contractor. In November 2008, a scheme of archaeological work was discussed and agreed with the Tyne and Wear County Archaeologist and the Historic Environment Advisor Archaeology (Hadrian's Wall) of English Heritage, whose role, given the proximity to the Hadrian's Wall WHS, is to ensure that the archaeology of the Roman frontier is properly treated as part of the development process. The scheme of archaeological work was secured by a condition of planning permission in line with the following UDP policy:

POLICY C04.3. WHERE ASSESSMENT AND EVALUATION HAVE ESTABLISHED THAT PROPOSED DEVELOPMENT WILL ADVERSELY AFFECT A SITE OR AREA OF ARCHAEOLOGICAL INTEREST, DEVELOPERS WILL BE REQUIRED TO PRESERVE ARCHAEOLOGICAL REMAINS IN SITU UNLESS THIS IS CLEARLY INAPPROPRIATE OR THE DESTRUCTION OF THE REMAINS IS DEMONSTRABLY UNAVOIDABLE, IN WHICH CASE A PROGRAMME OF ARCHAEOLOGICAL WORKS SHALL BE SUBMITTED TO AND AGREED WITH THE COUNCIL BEFORE THE START OF DEVELOPMENT.

⁵ Department of the Environment 1990. PPG16 was replaced in March 2010 by *Planning Policy Statement 5: Planning for the Historic Environment* (PPS5).

- 2.4.6 The agreed scheme comprised preservation *in situ* of all Roman deposits and preservation by record, through hand excavation, of significant post-Roman archaeological deposits, with subsequent reporting on the archaeological findings. At the time, this was considered the appropriate strategy to mitigate the impact of the proposed scheme on the archaeological resource at the site. The scheme of work was described in an initial Project Design compiled by PCA, with this being revised as required, as described below.
- 2.4.7 In January 2009, ahead of the work, the Project Design was revised to take into account updated design proposals, specifically describing the consequences of a revised 'project formation level' (PFL) with regard to the impact on archaeological remains of significance at the site. At that stage it was envisaged that all archaeological remains of importance would be preserved *in situ* within the majority of the site. Mechanical removal of overburden (the existing floor slab and its make-up) was to be archaeologically monitored across the site. Archaeological hand excavation was required only in a series of 'service entry pits' (SEPs) along the Westgate Road frontage, thus all allowing archaeological remains to be preserved by record in the area of each pit.
- 2.4.8 With the groundworks in progress, the Project Design was subsequently revised as required to address the archaeological implications of drainage and other service provision to the site. Specifically, these revisions detailed the necessary programme of archaeological excavation, sampling and recording to be undertaken in association with the installation of new drainage and other utilities within the site and below adjacent footways and highways for the purposes of connection to existing drainage and utility routes.

2.5 Archaeological and Historical Background

- 2.5.1 No archaeological desk-based assessment of the site was undertaken prior to the 2007 evaluation or the investigations herein described. A summary of the archaeological and historical background has therefore been compiled from various sources, including the Tyne and Wear Historic Environment Record (HER), published reports and documentary and cartographic material held by PCA.

2.5.2 Prehistoric

- 2.5.2.1 No prehistoric remains have been recorded within the vicinity of the site, although evidence of prehistoric agricultural activity, flint tools and a stone axe were recorded during excavations carried out between 1973 and 1992 on the promontory to the east of the site. A prehistoric cist with a possible cremation was located c. 200m south of the site and a number of high value bronze and iron objects, mostly weaponry, have been recovered from the Tyne during dredging and bridge building, suggesting that it was a place of ceremonial object deposition. Also of note is a permanent prehistoric settlement site that was recorded during excavations carried out near Pilgrim Street in 2004.

2.5.3 Roman

- 2.5.3.1 The site is located immediately to the west of the Roman fort of Newcastle and just to the south of the known line of Hadrian's Wall, a UNESCO WHS, as previously described. The Wall as originally planned ran westwards from Newcastle, where a new bridge was constructed and named *Pons Aelius* in honour of Hadrian (Emperor AD 117-138). The Wall was built in stone between Newcastle, and the River Irthing, the eastern c. 72km, with the remaining c. 50km constructed in turf. From its inception, the Wall was planned with regularly spaced fortlets ('milecastles') at intervals of about 1 mile and the original design also planned for two equally spaced towers ('turrets') between each milecastle.

- 2.5.3.2 At some point a fundamental change of plan occurred and forts were constructed along the line of the Wall, including the fort at Newcastle, and the Wall was extended to the east to terminate at the fort at Wallsend. A further defensive element – the *Vallum* – was added to the Wall after the decision had been taken to construct the forts. This comprised a broad flat-bottomed ditch flanked by a pair of linear banks constructed at some distance to the south of the Wall, sometimes adjacent to the Wall, and in some places up to 1km to its south. In the centre of Newcastle its presence is largely unconfirmed and it does not continue eastwards beyond the fort to Wallsend.⁶
- 2.5.3.3 The line of Hadrian's Wall in the vicinity of the site has been the subject of much previous discussion, since it must have been a significant factor in determining the position of the fort.⁷ Originally the Wall must have descended to the riverside, thus affording protection to the northern bridgehead of the Tyne crossing. Archaeological work along the easternmost portion of Westgate Road, most notably the discovery in 1985 of a milecastle at 67-75 Westgate Road (HER 205) and work further east on Westgate Road in 2004 at the former Cooper's Auction House (latterly the premises of Hertz) (HER 5977), has fixed line of the Wall on the approach to the fort. Current thinking is that the Wall then swung to the north and that the obvious line for it to have taken, avoiding a precipitous descent, was down the line of the modern street, The Side, thereby taking it along the bottom of small valley of a minor tributary of the Lort Burn, itself a tributary of the Tyne.⁸
- 2.5.3.4 The exact location of the Roman fort in Newcastle (HER 204; scheduled monument number 32753) was only determined beyond doubt in the 1970s.⁹ It lies c. 60m to the east of the site, largely beneath the medieval castle, between the Black Gate and the Keep. It was evidently detached from the Wall, as previously described, and was situated on a promontory defended by steep scarps to the north, east and south, an area now known as Castle Garth. Its full extent has not been determined, but it is thought to have been irregular in shape in order to utilise the triangular shape of the promontory and it had an estimated area of c. 0.5 hectares.
- 2.5.3.5 The northern defences of the fort lay above the steep slopes of the valleys of the Lort Burn and its minor tributary, these defining the northern edge of the promontory; a section of the north wall was excavated in 1985 near the site of the Black Gate. The southern defences are thought to have lain along the edge of the steep river cliff of the Tyne, whilst the eastern and western sides have never been located. Features predating the construction of the stone-built fort, comprise mid 2nd century construction debris, ditches and gullies of possibly Hadrianic date, all identified during previous archaeological work in the area.

⁶ Breeze and Dobson 2000, 59-60.

⁷ Bidwell and Snape 2002, 260-262.

⁸ Snape and Bidwell 2002, 6.

⁹ Snape and Bidwell 2002 details the results of excavations at the site of the fort, spanning a period of 20 years from 1976.

- 2.5.3.6 The stone-built fort in Newcastle dates from the late 2nd century or early third century AD. The *principia* has been partially excavated and appears to be of exceptionally small size, as are two granaries, also partially excavated. A recent summary of the fort intimates that the small size may reflect reductions in military unit size as represented by smaller barracks of the 3rd century seen elsewhere on the Roman frontier.¹⁰ The fort also has an unusual plan, with the granaries placed in the *praetentura* opposite the *principia*, this possibly being an early occurrence of the cruciform plan typical of late Roman date. The most recent hypothetical reconstruction of the location and layout of the fort was produced in 2002.¹¹ Figure 3 shows the location of the site herein described in relation to the proposed location of the fort.
- 2.5.3.7 Excavated evidence, specifically the pattern and quantity of coin loss, suggests that a market was established on the *via praetoria* in the 4th century. Archaeological work on the southern part of the promontory, near The Bridge Hotel, revealed a metalled surface, interpreted as part of one of the main fort roads. Immediately outside the north wall of the fort, archaeological work revealed evidence for Roman activity, including postholes, metalworking hearths and the fragmentary remains of a stone building.
- 2.5.3.8 Evidence for Roman activity has also been uncovered to the west of the fort, indicating the presence of a *vicus* and an associated cemetery on the western approach. The most extensive work in the *vicus* has been in the area of Clavering Place/Hanover Square, which lies c. 120m to the south-west of the site, just within the line of the western medieval town wall and the location of a medieval Carmelite friary, (established 1262). Numerous antiquarian discoveries of Roman material are recorded on the HER from this area, including an inscribed stone found in 1864 bearing the name of the first cohort of Thracians (HER 1442) and two Roman stone coffins found in the early 1900s (HERs 1450 and 1452). Roman material was discovered in the 1960s at Clavering Place during archaeological work to investigate the medieval friary.¹²
- 2.5.3.9 Most notable amongst other archaeological work in the area of Clavering Place was a programme of excavations at the former BEMCO building in 2008 and 2009 (Figure 3).¹³ This work established that although the area was evidently part of the *vicus* at one time, it had evidently been abandoned for cemetery activity. The most notable finds at the site were two massive sandstone sarcophagi within a large burial pit adjacent to a narrow north-south aligned Roman road. The Roman coarse pottery from that site indicates that the main period of activity was in the first half of the 3rd century, with a possibility of late 2nd century commencement and no occupation at all after c. AD 270.
- 2.5.3.10 The site of a former Parcels Office on the south side of Westgate Road, a short distance to the north-west of the site herein described, revealed the presence of limited archaeological remains of Roman date within one evaluation trench in 2007.¹⁴

¹⁰ Bidwell 2009, 71-73.

¹¹ Bidwell and Snape 2002, Fig. 6, 274.

¹² Harbottle 1968.

¹³ Annis 2009, 85-87.

¹⁴ M. Town, North Pennines Archaeology, pers comm.

2.5.3.11 The 2007 evaluation at the site herein described recorded evidence for multi-phase Roman occupation during the 2nd and 3rd centuries, with various types of remains being recorded, including structures, successive surfaces and pits. Whether the remains recorded during the evaluation relate to *vicus* settlement close to the fort or to the military installation itself was not certain. The range of artefactual material recovered, even through the limited exposure of remains possible during the evaluation, was certainly indicative of high status, possibly military, Roman period settlement. The hard surfaces recorded within Roman levels could represent yards or roads, possibly associated with defined properties in a civilian settlement, as identified at other *vici* in the north of England, or could represent an area of hardstanding for military activity, for example, the surface of a parade ground.

2.5.4 Medieval

2.5.4.1 The Roman fort at Newcastle was abandoned in the early 5th century and archaeological work within the fort site has recorded evidence that collapsed buildings were levelled, timber buildings and drainage features were built and paving was laid out after the demolition of the north wall of the fort. Non-Roman native pottery indicates that this was the result of early Anglo-Saxon occupation.¹⁵ Subsequently, a large Anglo-Saxon cemetery was established on Castle Garth; more than 650 east-west aligned inhumation burials dating from the 8th century to the mid 12th century have been recorded.

2.5.4.2 Documentary evidence records that in 1080, Robert Curthose, Duke of Normandy, built a motte and bailey castle on the site of Roman fort in Newcastle. Part of its boundary was recorded during excavations along the north-western side of the promontory, with a broad flat-bottomed ditch and a bank to the south, which formed part of the bailey to the rear. The location of the motte was not established. A stone-built tower keep castle replaced the motte and bailey castle between 1168 and 1178 during the reign of Henry II, of which part of the east curtain wall and north gateway remain upstanding.

2.5.4.3 The site lies within the medieval town defences of which two lengths survive to the south-west (scheduled monuments numbers 32752 and 32763). These defences were constructed from the mid 13th to the mid to late 14th century, enclosing an area of c. 60 hectares, with later additions along the riverside in the 15th century. Gateways were constructed at principle points of entry and a berm and ditch outside. Between the late 18th and 19th centuries, the gates and large sections of the wall were demolished, as demonstrated by cartographic evidence.

2.5.4.4 No evidence of the aforementioned Anglo-Saxon cemetery was recorded in the 2007 evaluation of the site herein described, although probable refuse pits of likely later medieval origin recorded in two evaluation trenches suggest that, away from the Westgate Road frontage, the site was utilised for the disposal of rubbish in the later medieval period. As the site lay within the medieval town walls, it is possible that this area lay within the backlots of plots fronting onto the medieval street of Westgate, the line of which survives as modern Westgate Road, a principal thoroughfare of the medieval town. Precise details of the pattern of medieval landholding are not known, but Oliver's map of Newcastle from the 1830s shows a series of long north-south orientated burgage plots running back from plots fronting Westgate Road.

¹⁵ Snape and Bidwell 2002, 7-9.

2.5.4.5 The aforementioned excavations undertaken in the 1960s to the south-west at Clavering Place recorded structural remains associated with the Carmelite friary, including a stretch of wall belonging to the quire, the south wall of the nave and the remains of the west and east walls of the friary east range.¹⁶ Cemetery activity of the period was recorded, along with a wattle-lined latrine from which 13th and 14th century pottery was recovered.

2.5.4.6 Further archaeological work was undertaken at the site of the Carmelite Friary in the 1990s (Figure 3).¹⁷ Various features, structures and deposits of medieval to 17th century date were recorded, including a cobble surface and a sandstone drain. Also, a deposit containing mortar and sandstone roofing slate was interpreted as possible material derived from the demolition of the monastic buildings. As previously mentioned, there have been further, recent, excavations at the site of the former BEMCO building in Clavering Place, but details of post-Roman findings are not available at the time of writing.

2.5.5 *Post-medieval*

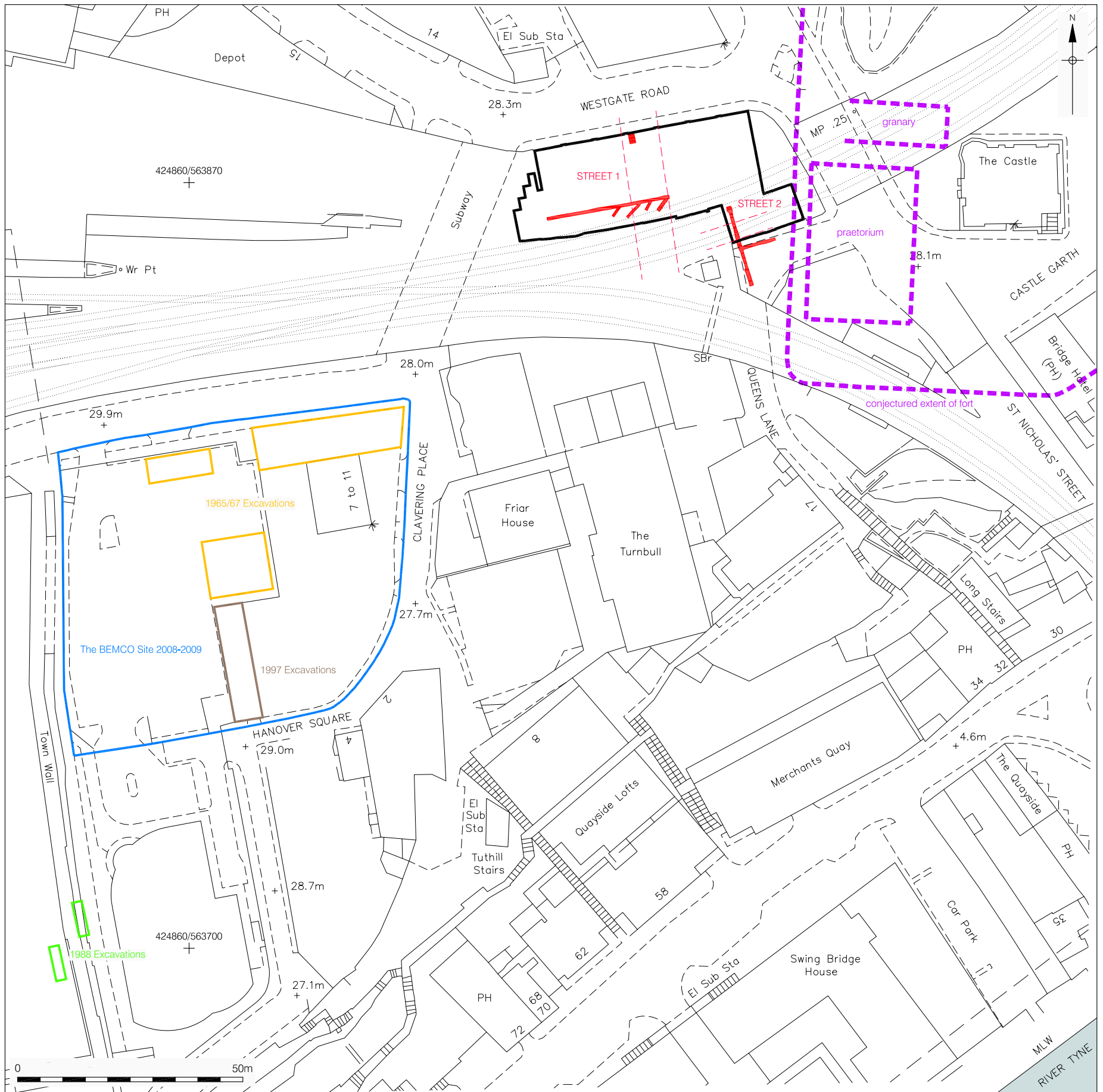
2.5.5.1 John Speed's map of 1610 is the earliest map to show the layout of the medieval town of Newcastle; the tower keep castle is annotated as 'High Castle' and the medieval town walls are also depicted. Charles Hutton's map of 1772 shows the area in more detail with substantial buildings occupying the area of the site, fronting onto Bailiff Gate. Lambert's map of 1807 shows a similar arrangement of buildings in the area of the site.

2.5.5.2 Wood's map of 1827 and Collard's map of 1841 shows a similar arrangement of buildings as previous maps and by this time it is evident that a large portion of the medieval town wall had been removed. A map of Newcastle and Gateshead from the 1840s shows the proposed course of the railway and records several structures within the site. By the time of Oliver's map of 1849, the railway, and presumably the accommodation arches that now occupy the site, had been completed and the structures recorded on previous maps fronting onto Bailiff Gate had been demolished.

2.5.5.3 The Ordnance Survey 3rd edition of 1919 records major alterations to the layout of the building complexes to the north, previously fronting Bailiff Gate, with the site now fronting onto Westgate Road. Very little development is known in the area after the 3rd edition Ordnance Survey map. During the 20th century, the railway arches were converted into commercial properties and until recent times the arches at the site were the premises of a motor garage.

¹⁶ Harbottle 1968.

¹⁷ Muncaster and Macpherson 1998.



© Pre-Construct Archaeology Ltd 2010

Figure 3
The Site: its archaeological context, showing previous investigations
1:1,000 at A3

3. AIMS AND OBJECTIVES

3.1 Project Aims

3.1.1 The project was 'threat-led', although careful design of floor levels in the refurbishment scheme effectively meant that only groundworks extending below the depth of the 'project formation level' (PFL) would damage or destroy sub-surface archaeological remains of the medieval and Roman periods. Thus, the broad aims of the overall project were:

- To achieve preservation *in situ* of the majority of archaeological remains within the site by mechanically removing - under archaeological supervision - the existing concrete floor slab and its make-up material (collectively 'modern overburden') down to the required PFL. This was variable across the site to take into account the required fall towards the street frontage (from south to north) across the new floor. Apart from the areas where limited groundworks extended below the depth of PFL, as described below, all archaeological remains at the site would therefore be preserved *in situ*.
- To achieve preservation by record of archaeological remains in areas where groundworks extended below the depth of PFL, namely in a series of 'service entry pits' along the street frontages, and in all new drainage and other utilities required both within the site and, for the purposes of connecting into existing drainage and other utility routes, below adjacent footways and carriageways. In all locations where new drainage and other utility provision was found - during archaeological supervision of modern overburden removal - to have the potential to impact upon important archaeological remains, manual excavation and recording was to be undertaken by archaeological personnel down to the maximum depth required at each location.
- To prepare an Assessment Report on the collected data and, as appropriate, to compile a final publication report on the findings.
- To prepare and submit a suitable Site Archive to an appropriate repository.

3.2 Research Objectives

3.2.1 The project was considered to have good potential to make a significant contribution to existing archaeological knowledge of central Newcastle in general and particularly of the Roman frontier. In advance of the fieldwork, specific research objectives to be addressed by the project were formulated with reference to two existing archaeological research frameworks. The first was *Shared Visions: The North-East Regional Research Framework for the Historic Environment* (NERRF),¹⁸ which highlights the importance of research as a vital element of development-led archaeological work. The second was the draft version of the Hadrian's Wall Research Framework (HWRF),¹⁹ this being replaced by the two-volume *Frontiers of Knowledge. A Research Framework for Hadrian's Wall*,²⁰ published during the fieldwork element of the project herein described.

3.2.2 The specific research objectives of the investigations are set out in the following paragraphs.

¹⁸ Petts and Gerrard 2006.

¹⁹ Available online at the time of the compilation of the Project Design.

²⁰ Symonds and Mason (eds.) 2009.

3.2.3 Given the site location, what information can the project provide regarding the *vicus* associated with the Roman fort of *Pons Aelius* and/or for the military installation itself? With this question in mind, the following key priorities within the NERRF research agenda for the Roman (R) period are of particular relevance to this project:

- **Riii - The Roman military presence.** When discussing the northern Roman forts, it is stated: 'It is also important to establish the number and extent of associated *vicus*' and 'Forts should not be studied separately from their *vicus* and vice versa; the populations and economies of these two site types would have been closely integrated and their development closely linked'.
- **Riv - Native and civilian life.** When discussing the relationship between the Roman military and civilian populations, it is stated: 'There is a need to improve our knowledge of the chronology of the *vicus*, particularly the date at which they fall out of use. Who were the *vicani*? What was their relationship between the *vicus* and their forts?' and 'For populations living in villas and *vicus*, what do artefactual and ceramic assemblages tell us? How do they relate to assemblages at military sites? This artefactual material will also help improve our chronological understanding of these sites.'

3.2.4 Other key priorities within the NERRF research agenda for the Roman period of some relevance to the project herein described are:

- **Rv – Material culture.**
- **Rvii – Religion.**
- **Rviii – Burial.**

3.2.5 In *Frontiers of Knowledge*, research strategy theme 'S.5 The Forts and Extramural Settlement' discusses a serious gap in current knowledge of extramural settlement along the Wall, largely due to the restricted investigation of such settlements over the years. Largely echoing NERRF key priority Riv, above, this theme highlights the shortage of information regarding who lived in, worked in or used the *vicus* and underlines a need to clarify the speed with which they developed and to determine when they ceased to be occupied and establish whether or not this abandonment may have been precipitated by any specific military, economic or social factors. This theme also highlights the need to clarify the layout and extent of extramural settlement and to determine if there was ever any formal layout or zoning by function or class in such settlements, these questions also echoing elements of NERRF key priorities Riv, Rvii and Rviii, above.

3.2.6 Other research strategy themes within *Frontiers of Knowledge* of relevance to the project herein described are 'S.6 Landscape and Environment', 'S.7 Production and Procurement' and 'S.8 Life and Society'. In addition, theme 'S.9 The Post-Roman Archaeology of Hadrian's Wall AD 400-1000' may also be of some relevance in that it discusses how there is not always a clear distinction between the latest Roman deposits and the earliest post-Roman ones, where these are present on archaeological sites, and highlights how there is real need to collect more data for the post-Roman theme.

3.2.7 Despite the importance of the early medieval period in the North-East region, relatively little is known about settlement archaeology outside a restricted part of north Northumberland. Therefore, given the site location what information can the project provide regarding early medieval Newcastle, through cemetery or other settlement related activity? With this question in mind, the following key priorities within the NERRF research agenda for the early medieval (EM) period are of particular relevance to this project:

- **EMii – Settlement.**
- **EMvii – Death and burial.**

3.2.8 Given the site location, what evidence from the medieval town, particularly with regard to its occupants and their activities, can the project provide? With this question in mind, the following key priorities within the NERRF research agenda for the later medieval (MD) period are of particular relevance to this project:

- **MDi - Settlement.**
- **MDiii – Urbanism.**
- **MDvii - Medieval ceramics and other artefacts.**

4. METHODOLOGIES

4.1 Fieldwork

- 4.1.1 The archaeological investigations were undertaken in accordance with the Project Design – which, as previously described, was subject to ongoing revision prior to and during the fieldwork – and the relevant standard and guidance documents²¹ of the Institute for Archaeologists (IfA). PCA is an IfA-Registered Organisation. The methodologies employed during the programme of investigations is summarised below.
- 4.1.2 The initial phase of work comprised archaeological monitoring of mechanical excavation of the existing concrete floor slab and its make-up to PFL throughout Arches 1-8. For the avoidance of doubt, PFL was the maximum excavation depth required for new floor construction throughout the site, as advised by Spencer. The existing slab was ‘broken-out’ mechanically, with the exception of the access corridor portion of Arch 2, where the slab was retained. Breaking-out was undertaken using a tracked 360° ‘mini-digger’ (up to 5-tonnes in size) fitted with a hydraulic breaker. The broken slab, along with – as necessary with regard to PFL - underlying make-up (typically brick rubble) and any underlying soft deposits were then removed under archaeological supervision. PFL was variable throughout the site, although, in practice, excavation proceeded to PFL throughout the site without archaeological deposits of significance being encountered.
- 4.1.3 The final element of this initial phase of work was hand excavation of an exploratory pit (Trench 8) along the route of the proposed main internal drainage in the southern part of Arch 4; it measured c. 1.50m square and was excavated to a maximum depth of c. 0.85m below PFL. This initial phase of work was conducted 2-10 March 2009. At its conclusion geotextile was laid at PFL throughout the site, and a layer of crushed stone was then laid down, this to serve as the sub-base for the new floor slab.
- 4.1.4 The second phase of archaeological work comprised archaeological excavation of seven ‘service entry pits’ (SEPs; designated Trenches 1-7) on the Westgate Road frontage of Arches 2-8 and a single SEP (Trench 9) on the Queens Lane frontage of Arch 1 (Figure 2). All were located on the eastern side of, and immediately adjacent to, an arch pier and all measured c. 2.0m north-south by c. 1.0m east-west at ground level and were excavated to a maximum depth of c. 0.90m below the sub-base for the new floor slab, as advised by Spencer. This phase of work was conducted 11-24 March 2009.
- 4.1.5 The third phase of archaeological work comprised monitoring of mechanical excavation – by a tracked 360° ‘mini-digger’ fitted with a 0.50m wide, toothless bucket - of a trench (Trench 10) for internal drainage (Figure 2). This ‘watching brief’ commenced on a shallow north-south length of the drainage run in the westernmost portion of the site, and then continued, at increasing depth, along the main west to east portion of the drainage run through Arches 8-2. During this work, it quickly became apparent that the required west to east fall of the drainage run necessitated excavation to such a depth that important archaeological remains of medieval and Roman date would be impacted upon.

²¹ IfA 2008.

- 4.1.6 Therefore, where such remains were exposed by mechanical excavation of overburden, all deposits were hand excavated by PCA, with appropriate recording and sampling, to the required depth for the drainage run, as advised by Spencer and their drainage contractor ('Areas of detailed investigation' on Figure 2). Where deposits of recent origin extended fully to the required depth of excavation, such material was removed by machine under archeologically supervision ('Areas monitored by watching brief' on Figure 2). Trench 10 extended c. 47m west-east, was up to c. 0.70m wide and was excavated to a maximum depth of c. 1.20m below the sub-base for the new floor slab, this in a distinct portion (Trench 10 East) at its eastern extent in Arch 2. The southern parts of Arches 3-8 required one or more extensions from the main trench to serve WCs and/or wash hand basins. Two extensions in each of Arches 5 and 6 required complete hand excavation due to the presence of important archaeological remains. These extensions (designated 'Extensions 1-4' from east to west) measured up to c. 4.0m in length and were generally c. 0.60m wide and were excavated to a maximum depth of 0.80m below the sub-base for the new floor slab. This phase of work was conducted 24 March-9 April 2009.
- 4.1.7 The fourth phase of archaeological work comprised monitoring of mechanical excavation - by a 360° 'mini-digger' fitted with a 0.50m wide, toothless bucket - of a north-south aligned trench (Trench 11) to connect the internal drainage run (Trench 10) to existing drainage below the highway of Queens Lane to the south of the site (Figure 2). In addition, beyond the southern end of the Arch 2 access corridor, this trench was extended to the east for drainage from Arch 1. This 'watching brief' commenced at the junction of Trenches 10 and 1 in Arch 3 and then continued, at increasing depth due to the required north-south fall of the drainage run, through the Arch 2 access corridor and into the carriageway of Queens Lane.
- 4.1.8 Again, where it became evident that important archaeological remains of medieval and Roman date would be impacted upon, all such remains were exposed by mechanical excavation of overburden, then hand excavated by PCA, with appropriate recording and sampling, to the required depth for drainage installation, as advised by Spencer and their drainage contractor ('Areas of detailed investigation beyond site boundary' on Figure 2). Trench 11 was thus T-shaped with its north-south arm c. 18.0m in length by up to c. 1.0m wide (Plate 18). It was excavated to its maximum required depth below the sub-base for the new floor slab in Arch 3, below the existing floor slab in the Arch 2 access corridor, and below existing ground level in Queens Lane; the actual maximum recorded depth was c. 1.25m. Its east-west arm was c. 8.0m long by up to c. 0.70m wide and was excavated to a maximum depth of c. 1.40m below existing carriageway level in Queens Lane. This phase of work was conducted 10 August-18 September 2009.
- 4.1.9 The final element of the archaeological investigations, conducted while hand excavation of Trench 11 was taking place, comprised monitoring of mechanical excavation - by a 360° 'mini-digger' fitted with a 0.50m wide, toothless bucket - of two trenches (Trenches 12 and 13) in footways immediately adjacent to the site to connect to existing utilities, other than drainage.

- 4.1.10 Trench 12, located along the Westgate Road frontage of Arches 2-8, extended c. 44m on a WSW-ENE alignment, was up to c. 1.25m wide and was excavated to a maximum depth of c. 0.65m below pavement level. It was to house a variety of incoming utilities. Trench 13 was located in the carriageway of Queens Lane, across the frontage of Arch 1, turning, at its eastern end onto the pavement of St. Nicholas' Street to connect to an existing electricity main. Its main element measured c. 15m in length by up to c. 0.35m wide and was excavated to a maximum depth of c. 0.60m below existing ground level. At its eastern end, in the footway of St. Nicholas' Street, was a service pit c. 1.90m in length by c. 1.05m wide and up to c. 0.70m deep.
- 4.1.11 During the programme of archaeological investigation, excavation and recording was undertaken in accordance with recognised archaeological practice and following the methodology set out in PCA's *Field Recording Manual*.²² Where mechanical excavation of overburden revealed archaeological remains of importance, hand cleaning of the exposures was undertaken, followed by hand excavation of all remaining deposits down to the required maximum depth of excavation. At some locations, e.g. in Trenches 1-9, all excavation was undertaken by hand by archaeological personnel. As previously described, at some locations mechanical excavation of overburden continued to the required maximum depth of excavation due to the nature and date of the material encountered.
- 4.1.12 Archaeological deposits and features were recorded using the 'single context recording' method on the PCA *pro forma* 'Context Recording Sheet'. Excavated features and stratigraphic deposits were recorded in plan at a scale of 1:10 or 1:20 and in section at a scale of 1:10. Archaeological structures were recorded on the PCA *pro forma* 'Masonry Recording Sheet'. All archaeological remains were subject to 100% excavation - within the limits of the trenches - down to the required depth of excavation at each location, as advised by Spencer. Artefacts and faunal remains were collected by archaeological context by during hand excavation and bulk soil samples were taken for the recovery of biological remains, as appropriate.
- 4.1.13 Each trench was located relative to fixed structural points in the site and thus located relative to the Ordnance Survey grid. The height of all archaeological deposits and features was recorded relative to Temporary Bench Marks (TBMs) established at the site; these had values of 29.00m OD and 28.66m OD. The origin of the TBM values was the Ordnance Survey Bench Mark (value 29.31m OD) located on the south-eastern corner of the St. Nicholas Building, St. Nicholas' Street.
- 4.1.14 A detailed photographic record of the investigations was compiled using SLR and digital cameras. This comprised black and white prints and colour transparencies (on 35mm film), illustrating the principal features and finds in detail and in general context. All photographs of this nature included a clearly visible graduated metric scale. The photographic record also included 'working shots' to illustrate more generally the nature of the archaeological investigations.

²² PCA 2008.

4.2 Post-excavation

- 4.2.1 Not everything recovered during archaeological fieldwork has the same significance and thus the same potential for further study, thus the process of 'post-excavation assessment' is undertaken to identify those elements of the site data that require further analysis. In accordance with MoRPHE guidelines, the site data has been assessed for its potential for further analysis in relation to the research objectives of the project and any additional questions that have come to light as a result of the fieldwork. This Assessment Report enumerates the different kinds of evidence (stratigraphic, artefactual and palaeoenvironmental) from the site and sets out a formal assessment of the potential of each element of the collected data for further analysis.
- 4.2.2 The stratigraphic data from the site is represented by the written, drawn and photographic records. Post-excavation work involved checking and collating site records, grouping contexts, enhancing matrices, consulting with external specialists and phasing the stratigraphic data. A written summary of the archaeological sequence was then compiled, as described below in Section 5. The contents of the paper and photographic elements of the Site Archive are quantified in Section 6.
- 4.2.3 All processing of artefacts and ecofacts was undertaken away from the site. Assemblages of ceramic material and faunal remains were recovered along with a variety of 'small finds' comprising copper alloy, iron, lead, glass, pottery, fired clay, shale and stone objects. All artefacts recovered were treated in an appropriate manner and were cleaned, marked, conserved, bagged, packaged, boxed and stored, as appropriate and in accordance with recognised guidelines.²³
- 4.2.4 All materials that required stabilisation were transferred to a specialist conservation facility as soon as possible. The conservation of vulnerable materials commenced with an assessment of all recovered artefacts. Quality of preservation was assessed and the long-term conservation and storage needs of all excavated material identified.
- 4.2.5 Assessment of artefactual and ecofactual material has been undertaken by suitably qualified personnel. For each category of artefact and ecofact an assessment report has been produced including a basic quantification of the material and a statement of its potential for further analysis and recommendations for such work (Sections 7-12).
- 4.2.6 The palaeoenvironmental sampling strategy was to recover bulk samples from suitable, well-dated archaeological deposits. To this end, ten bulk samples, from an overall total of 28 collected during the fieldwork, were sent for an initial assessment of potential for survival of biological remains (Section 11).
- 4.2.7 Survival of all materials recovered during or generated by archaeological projects depends upon suitable storage. The complete Site Archive, comprising written, drawn and photographic records (including all material generated electronically during post-excavation) and all recovered materials will be packaged for long term curation.

²³ UKIC 1983; Watkinson and Neal 2001.

4.2.8 In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document²⁴ will be adhered to, in particular a well-established United Kingdom Institute for Conservation (UKIC) document²⁵ and a forthcoming IfA publication.²⁶ The archive will be quantified, ordered, indexed, and internally consistent. The depositional requirements of the receiving body, in this case the Great North Museum, will be met in full.

²⁴ Brown 2007.

²⁵ Walker 1990.

²⁶ IfA forthcoming.

5. PHASED SUMMARY OF THE ARCHAEOLOGICAL SEQUENCE

5.1 Phase 1a: Natural Sub-stratum

5.1.1 As a consequence of the archaeological mitigation strategy employed, whereby deposits below PFL were retained *in situ*, the natural sub-stratum was encountered at very few locations during the work. A layer, [2088], of mid brownish yellow clay, was encountered as the basal deposit at the T-junction of Trench 11 (Figure 23). Recorded at a maximum height of 26.83m OD, this was interpreted as glacial 'drift' material, known generally as Boulder Clay.

5.2 Phase 1b: Sub-soil

5.2.1 Sealing natural clay [2088] in Trench 11 was a layer, [2087], of firm light greyish brown silty clay representative of a sub-soil which had formed prior to the development of the site during Phase 2. It was up to only 90mm in thickness and was encountered between heights of 27.23m OD and 27.03m OD (Figure 23).

5.3 Phase 2: Roman, Overview Discussion

5.3.1 The general nature of the archaeological investigations, in conjunction with the complexity of the activity and the wide date ranges recorded, has meant that identification of sub-phases of activity on a site wide basis proved problematic. However, examination of all deposits, features and structures assigned to Phase 2, the Roman period, has allowed the tentative identification of six sub-phases of activity. Phases 2a, 2b, 2c and 2d have been defined as activity associated with the construction and usage of a thoroughfare, Street 1, while Phases 2e and 2f are representative of activity pre-dating, and associated with, the construction and usage of a subsequent thoroughfare, Street 2.

5.4 Phase 2a: Late 2nd/Early 3rd Century (Figure 4 - plan)

5.4.1 Street 1

Trench 10 (Figure 21 - section)

5.4.1.1 Recorded within the central part of Trench 10 and assigned to Phase 2a were the remains of a roughly north-south aligned street, Street 1, running through the centre of the site. During the construction of Street 1 a clayey sand layer, [1082], had been deposited, above which a layer of rounded and sub-rounded cobbles, [1081], set within a firm silty clay matrix, had been laid. The uppermost layer was encountered at a maximum height of 27.85m OD and the two layers represented the foundations of Street 1 during Phase 2a.

5.4.1.2 Overlying these foundation layers was a stone surface, [1079], mostly comprising rounded and sub-rounded cobbles up to 30mm in diameter, within a sandy silt matrix (Plates 3 and 4). The surface was encountered at a maximum height of 27.78m OD and likely represents the Phase 2a surface of Street 1 or possibly the sub-base of a surface which had subsequently been removed. The arched form of the eastern extent of the metalling was likely representative of a road camber, indicating that this was probably close to eastern street edge, implying that Street 1 was orientated roughly north-south.

Trench 4 (Figure 15 - sections)

- 5.4.1.3 With the speculated north-south alignment of Street 1 as a consideration, it is possible that a compacted crushed sandstone layer, [417], encountered at 27.56m OD and the earliest recorded deposit in Trench 4, could be a make-up layer or surface forming a continuation of Street 1 further to the north.

5.4.2 Western frontage of Street 1

Trench 10 Extension 3 (Figure 19 - sections)

- 5.4.2.1 Potentially contemporary with, or slightly pre-dating/post-dating, the construction of Street 1 was the development of land to the immediate west. In particular, in Trench 10 Extension 3, a wall, [1031], probably on a north-south alignment, was recorded in close proximity to Street 1. The wall - encountered at a height of 27.95m OD - was constructed from random sandstone rubble (stones up to 200mm x 200mm x 120mm) bonded with silty clay. The construction cut for and foundations of the wall could not be exposed within the limits of excavation, however the exposed portion measured at least 0.70m wide and stood to a height of 0.18m.
- 5.4.2.2 To the north and north-west of wall [1031], floor surfaces attributed to Phase 2a were present and whilst stratigraphically unrelated to the wall, may well have been associated. The floor surfaces and associated levelling layers comprised: a soft clayey silt layer, [1021], 60mm thick and with fragments of charcoal and daub; a 30mm thick clay beaten-earth floor, [1020], encountered at 27.79m OD; a firm clayey silt beaten-earth floor, [1051], encountered at a height of 27.79m OD and containing cultural material of 2nd century date; a boulder and cobble surface, [34], exhibiting evidence of wear and encountered at 27.43m OD; and a cobble and silt surface, [12], exceeding 90mm in thickness and encountered at 27.68m OD.

Trench 2 (Figure 15 - sections)

- 5.4.2.3 The only remaining context recorded to the west of Street 1 and assigned to Phase 2a comprised a firm clayey silt beaten-earth floor, [214], within Trench 2 which yielded 2nd century pottery and was encountered at 27.77m OD. Given the distance between this floor surface and the Phase 2a contexts in Trench 10, it is thought unlikely that the floor relates to the same activity and instead may be indicative of structural development west of Street 1 but further to the north.

5.4.3 Eastern frontage of Street 1

Trench 11 (Figure 23 - sections)

- 5.4.3.1 Similar to the western frontage, being either contemporary with or slightly pre-dating/post-dating construction of Street 1, was structural development of land to the east during Phase 2a. In particular, in the northern part of Trench 11 an east-west orientated stone wall, [2086], measuring 0.64m in width by at least 0.20m in height, was encountered at 27.73m OD (not recorded in section). The foundations of and construction cut for the wall were obscured by later deposits, however at least two courses of masonry were visible. The wall had been constructed using random sandstone rubble (stones up to 360mm x 120mm x 100mm) with an internal rubble core bonded with clay. Some pottery of 2nd century date was recovered from the wall fabric.

- 5.4.3.2 In the central part of Trench 11, two additional Phase 2a east-west orientated stone walls were recorded (Plate 8). The northernmost of the two, wall [2077], had been constructed directly above sub-soil [2087], *i.e.* wall construction was 'surface-lain', and the structure was c. 1.85m wide by c. 0.60m high, encountered at 27.74m OD. The wall comprised two courses of random sandstone rubble, (stones up to 360mm x 270mm x 240mm) bonded with clay. The majority of the wall exhibited a reddish orange discolouration likely indicative of exposure to high temperature (Plates 13 and 16, the latter showing Section 38). In addition, fragments of metalliferous slag were recovered from the wall fabric itself, which may indicate some industrial activity had been undertaken in this part of the site and/or that a fire episode had occurred during usage.
- 5.4.3.3 The other structure in the central part of Trench 11 was located c. 1.75m to the south of wall [2077]. In this instance a substantial masonry foundation, [2068], within a construction cut, [2091], was recorded. The construction cut was 'box-shaped' in profile and measured at least 0.80m wide, 0.44m deep and was encountered at 27.04m OD. The foundation comprised medium to large sub-round boulders set within a firm clay matrix from which pottery of possible 3rd century date was retrieved. Above it were the remains of a wall, [2078], c. 1.65m wide and c. 0.55m high, encountered at 27.55m OD (Plate 14). The wall was constructed with random sandstone rubble (stones up to 390mm x 300mm x 260mm) bonded with clay. Three courses survived. Pottery of possible 3rd century date and six large fragments of an iron sheet (SF114 and SF115) were recovered from the wall, with the metal artefacts possibly representing an 'offering' interred during construction/modification of the wall.
- 5.4.3.4 Abutting walls [2077] and [2078] was a soft clayey silt layer, [2084], up to 0.15m thick and encountered at 27.15m OD. Charcoal and degraded ceramic building material was observed within the layer, which may either represent a levelling layer or a disturbed activity horizon associated with building construction/modification. Directly above was a stone surface, [2083], up to c. 0.15m thick and encountered at 27.24m OD (Plate 17; but not recorded in section). This had been constructed from medium and large sandstone slabs (slabs up to 400mm x 290mm x 130mm) set within a soft clay silt matrix. Smooth wear patterns on the surface imply it remained in use for an extended period of time and it is possible the c. 1.75m space between the two walls was an east-west orientated pathway.
- 5.4.3.5 Establishing the longevity of the putative sandstone pathway is difficult, however, prior to the end of Phase 2a, a firm, 90mm thick, clay floor, [2082], was deposited above the earlier horizon (Plates 8 and 9). Retrieved from this floor surface was an iron socketed implement (SF113) possibly the remains of an iron spearhead and possibly a military implement.

Trench 5 (Figure 16 - sections)

- 5.4.3.6 Further evidence pertaining to structural development to the east of Street 1 during Phase 2a was recorded in Trench 5. This comprised a north-south aligned wall, [509], constructed from sandstone rubble bonded with clay (Plate 1). The wall was initially exposed against the eastern limit of excavation and continued beyond the northern, southern and eastern limits of excavation. An extension of the trench was excavated to establish the full width of the wall and this demonstrated it was c. 0.55m wide, at least 0.50m high and was recorded at a maximum height of 28.09m OD.

- 5.4.3.7 At the southern extent of the exposed wall were the remains of an arched element, exceeding 0.70m in length north-south and c. 0.25m high, possibly representing a stokehole. A soft clayey silt deposit, [513], filled the possible stoke hole and assessment of a bulk sample of this deposit produced small quantities of charcoal, clinker, coal, unburnt bone and charred wheat grain embedded in a fragment of fired clay.
- 5.4.3.8 In addition to the putative stoke hole, the masonry itself was pinkish in colour, presumably as a consequence of exposure to high temperature. This was particularly evident on the western side of the structure (Plate 1) and thus it is possible the wall formed the eastern side of a structure serving an industrial purpose, e.g. an oven, furnace or kiln.

Trench 6 (Figure 16 - sections)

- 5.4.3.9 The remaining evidence of structural development to the east of Street 1 during Phase 2a was recorded in Trench 6, to the east of Trench 5, and comprised a firm silty clay layer, [614], only 30mm thick and encountered at 27.64m OD. Whilst investigation of the layer was limited to exposure at the basal limit of excavation, it nonetheless appeared to represent a beaten-earth floor surface, potentially forming a continuation of the structural evidence recorded in Trench 5.

5.5 Phase 2b/c/d: 3rd Century (Figures 5 and 6 - plans)

5.5.1 Overview Discussion

- 5.5.1.1 Following the construction of Street 1, episodes of street maintenance/modification were undertaken during the three subsequent sub-phases of 3rd century activity, Phases 2b, 2c and 2d. Due to the limitations of the investigations it has not been possible to correlate these episodes of street maintenance/modification with the Phase 2 sub-phases recorded elsewhere on site. As a consequence, evidence of street maintenance/modification is discussed under the composite term 'Phase 2b/c/d' with the acknowledgement that these episodes could variably apply to Phase 2b, Phase 2c or Phase 2d.

5.5.2 Street 1

Trench 10 (Figures 17-21 - sections)

- 5.5.2.1 The earliest deposit post-dating Phase 2a Street 1 in Trench 10 was a firm silty clay layer, [1078], 0.17m thick and encountered at 27.82m OD. This yielded pottery of 3rd century date. It was in turn overlain by a 20mm thick lens of firm sandy silt, [22], encountered at 27.84m OD and with frequent inclusions of charcoal. Directly above were two layers of firm clay, the earlier of which, layer [1075], was encountered at 27.95m OD, whilst the later, layer [1074], was encountered at 27.94m OD. These represent make-up deposits associated with an episode of street modification during Phases 2b, 2c or 2d.
- 5.5.2.2 Subsequent to the deposition of the make-up layers, several areas of metallised surface, [72] (Trench 10 Extension 1) (Plate 5), [1071] (Trench 10 Extension 2) and [1072], were deposited. These comprised strongly cemented, well-sorted fine sub-rounded stones within a silty sand matrix and were encountered at heights between 27.86m OD and 27.90m OD.

- 5.5.2.3 These deposits recorded in Trench 10 likely represent make-up layers and a metalled surface deposited to raise the surface height of Street 1, perhaps as a consequence of its eastern and western frontages became increasingly built up over time. It is also apparent that the deposits were thicker on the relatively prominent eastern *camber* of the Phase 2a street, which perhaps suggests that attempts to widen Street 1 had been made.
- 5.5.2.4 Subsequent to the construction of the metalled surface(s), a friable clayey silt layer, [1067]/[1097], 0.10m thick and recorded at 27.90m OD, was deposited. Pottery of 3rd century date and a probably intrusive 4th century coin (SF11) were retrieved from the layer. Bulk sampling produced quantities of oak stemwood charcoal, semi-vitrified fuel waste, calcined bone, hammerscale/ferrous material, charred heather twigs, clinker and coal. This material broadly suggests that the deposit was derived from a domestic and/or industrial context and it is possible that waste material from buildings alongside the street was utilised as make-up material to once again raise the surface level of Street 1.
- 5.5.2.5 Deposited above refuse layer [1067]/[1097] were make-up layers of firm clayey silt, [1062], and firm clay, [1068], up to 0.24m thick and encountered at 28.04m OD and 27.95m OD, respectively.
- 5.5.2.6 A comparable sequence of deposition was recorded in Trench 10 Extension 1. However, in this instance two sandy silt make-up layers, [70] and [71], were recorded, each only c. 80mm thick and recorded at 27.83m OD and 27.91m OD, respectively, with no evidence of an intervening dump deposit. Above these make-up layers, two metalled surfaces, [69] and [1035], had been laid down. These surfaces, recorded between 28.04m OD and 27.96m OD, comprised strongly cemented well-sorted, fine sub-rounded stones within a sandy matrix. The metalling, up to 0.25m thick, plausibly represents a tertiary street surface/sub-base implying an ongoing need to elevate the height of Street 1 relative to its eastern and western frontages during Phases 2b, 2c or 2d.
- 5.5.2.7 A fourth episode of possible street maintenance was recorded in Trench 10, this likely representing the final evidence of Street 1 during Phases 2b, 2c and 2d. The relevant deposits comprised clay and clayey silt make up layers, [36], [66], [67], [68], [1025], [1033] (Plate 6) and [1036], recorded at heights between 28.02m OD and 28.10m OD. Some yielded small quantities of 3rd century pottery. Bulk sampling produced small quantities of oak stemwood charcoal, calcined bone, unburnt bone and quantities of clinker, coal and hammerscale/ferrous material, broadly suggesting that these layers were possibly derived from an area associated with industrial activity. No evidence of metalling was found above the make-up layers and it is possible that any associated street surface/sub-base was removed when Street 1 fell out of use during the transition between Phases 2d and 2e.

Trench 4 (Figure 15 - sections)

- 5.5.2.8 Beyond Trench 10, possible evidence of maintenance/modification of Street 1 was recorded in Trench 4, where a clayey silt layer, [415], up to 0.12m thick and encountered at 27.51m OD, was recorded. Overlying this was a similar clayey silt layer, [414], up to 0.18m thick, in turn sealed by another clayey silt layer, [413], up to 0.46m thick and encountered at 28.19m OD. These deposits represent make-up layers.
- 5.5.2.9 The uppermost of these layers was in turn overlain by the remains of a possible stone surface, [412], which comprised fragmented sandstone blocks set within a silty clay matrix. It was encountered at 28.19m OD and, given the location of Trench 4 relative to the proposed continuation of Street 1, it is probable that, along with its associated make-up material, it represents further evidence of efforts to raise the height of Street 1 during Phases 2b, 2c or 2d.

5.6 Phase 2b: 3rd Century (Figure 5 - plan)

5.6.1 Overview Discussion

5.6.1.1 Following the structural development evident to the east and west of Street 1 during Phase 2a, it is probable that the street frontage buildings remained in use for varying lengths of time, into Phase 2b. However, whilst modification of the existing buildings may have been undertaken, e.g. laying down of new floor surfaces, no evidence of new structural development was found and, in some parts of the site, e.g. the western frontage of Street 1, a period of construction inactivity seems to have typified the early part of Phase 2b.

5.6.2 Western frontage of Street 1

Trench 10 (Figures 17-21 - sections)

5.6.2.1 Within Trench 10, various layers, [11], [18], [20], [27], [28], [29], [31], [32], [33], [1019], [1030] and [1032], were recorded towards the route of Street 1. Mostly comprising soft clayey silt, firm sandy clay and loose sand these deposits were recorded at a maximum height of 27.95m OD and, with the notable exception of a penannular brooch (SF2), yielded very little cultural material. During Phase 2b it is possible that structures existent during Phase 2a remained in place, although the minimal quantities of cultural material and the absence of new structures perhaps suggests that activity, certainly in terms of construction, was reduced at this time.

5.6.2.2 In contrast, the latter part of Phase 2b seems to have been a time of renewed activity to the west of Street 1, with a number of surfaces recorded within the confines of Trench 10. These comprised the following: a c. 0.20m thick cobble surface, [10], encountered at 27.80m OD (Plate 2); a silty clay beaten-earth surface, [1018], 60mm thick and encountered at 27.88m OD; a clay surface, [1073], 0.22m thick and encountered at 28.04m OD.

5.6.2.3 In addition, a stone surface, [23], was also recorded, this constructed from sandstone slabs (slabs up to 920mm x 500mm x 80mm) at a maximum height of 27.85m OD. The surface was notable for its pinkish discolouration, this most probably a consequence of exposure to heat, which, in addition to the presence of a circular area 0.30m in diameter at its eastern extent, could imply that a small oven or furnace once existed at that location.

5.6.2.4 The longevity of the Phase 2b surfaces in Trench 10 is impossible to establish. However, with the exception of cobble surface [10], all of the surfaces were overlain by a mixture of sandy silt clay and sandy clay silt layers, [93], [94], [1023], [1024], [1043] and [1044], by the transition to Phase 2c. These layers, which most probably represent a mixture of occupation deposits, dump layers and demolition material, were encountered between 27.98m OD and 28.25m OD.

5.6.3 Eastern frontage of Street 1

Trench 11 (Figure 23 - sections)

5.6.3.1 To the east of Street 1 within Trench 11 it is possible that buildings constructed during Phase 2a remained in use during Phase 2b. A friable silty sand levelling layer, [2081], abutted the Phase 2a masonry, in turn overlain by a soft clayey silt levelling layer, [2076], encountered at 27.41m OD. The combined thickness of the two levelling layers was 0.21m. Moderate quantities of 3rd century pottery and occasional fragments of ceramic building material, glass, fired clay lining and a corroded iron bar (SF111) were retrieved from these deposits.

- 5.6.3.2 In addition, bulk samples were assessed from both layers, with the stratigraphically earlier layer yielding charred wheat and oat grain, grass seeds and varying quantities of charcoal, clinker, coal, calcined and unburnt bone. The later layer yielded quantities of charcoal, clinker, coal, calcined and unburnt bone, while plant macrofossils were notable for their absence.
- 5.6.3.3 Post-dating the secondary Phase 2b levelling layer was a firm, clay beaten-earth floor, [2075], 0.10m thick and encountered at 27.39m OD. The floor abutted Phase 2a masonry in Trench 11, with the implication the earlier buildings remained in use at this time.
- 5.6.3.4 Sealing floor surface [2075], and deposited internally and externally to the Phase 2a masonry, were three dump/levelling layers, [2072], [2089] and [2090], collectively 0.12m thick and encountered at a maximum height of 27.62m OD. Moderate quantities of 2nd/3rd century pottery were retrieved from these layers, along with a nail shank (SF109), a folded iron bar (SF118) and an intrusive 19th century nail (SF119).
- 5.6.3.5 Post-dating the dump/levelling layers were clayey silt rubble layers, [2028]/[2069] and [2085], containing frequent cobbles, sandstone fragments and roughly hewn sandstone blocks. The layers were collectively 0.45m in thickness and were encountered at a maximum height of 27.89m OD. Occasional fragments of 3rd century pottery were retrieved from these deposits, the composition of which is indicative of an episode of demolition.
- 5.6.3.6 A rubbish pit, [2074], also post-dated the dump/levelling layers. It was encountered at 25.73m OD, measured 1.28m north-south by at least 0.22m east-west and was up to 0.10m deep. A clayey silt fill, [2073], produced pottery dating to the 3rd century and a fragment of glass. In addition, a bulk sample produced charred wheat and oat grain, grass seeds, fishbone and varying quantities of charcoal, clinker, coal, calcined and unburnt bone.
- 5.6.3.7 The remaining contexts attributed to Phase 2b in Trench 11 comprised an additional episode of dumping/levelling, represented by layers [2063], [2070] and [2080]. These comprised soft to firm clayey silts up to 0.26m thick and encountered at a maximum height of 27.85m OD. Retrieved from these layers was 3rd century pottery, ceramic building material, slag, a nail shank (SF108), a quern fragment (SF106), along with some intrusive medieval pottery.

Trench 5 (Figure 16 - sections)

- 5.6.3.8 The only other Phase 2b deposits to the east of Street 1 were recorded in Trench 5. These comprised a firm clayey sandy silt dump/levelling layer, [510], 0.48m thick and recorded at 28.09m OD to the west of Phase 2a masonry. In addition, a firm sandy clay dump/levelling layer, [512], 0.30m thick and containing 2nd/3rd century pottery, charcoal and patches of clay, was recorded at 28.16m OD.

5.7 Phase 2c: 3rd Century (Figure 5 – plan)

5.7.1 Overview Discussion

- 5.7.1.1 The previous discussion of the maintenance of Street 1 has demonstrated that attempts to raise the street level were undertaken episodically during Phases 2b, 2c and/or 2d. It is possible that this may have been a consequence of depositional build up associated with buildings constructed during Phase 2a, which potentially remained in use during later sub-phases of Phase 2. Possible evidence of drainage features was recorded to the east and west of Street 1 during Phase 2c, whilst evidence of occupation and building construction/maintenance was also encountered.

5.7.2 Western frontage of Street 1

Trench 10 (Figures 17-21 - sections)

- 5.7.2.1 During Phase 2c, a silty clay, beaten-earth floor, [1017], encountered at 27.99m OD and 50mm thick, was recorded in Trench 10, suggesting that a building occupied the western frontage of Street 1 at this time.
- 5.7.2.2 Truncating the floor was a narrow, vertical-sided, flat-based, NE-SW aligned construction cut, [1016], containing a sandstone slab lining, [1015], and clayey silt infill [1014]. The feature was 0.23m wide, 0.26m deep and was recorded at a maximum height of 27.99m OD. A continuation of what may have been the same feature, although with no evidence of a stone lining, was recorded further to the north in Trench 10, as a linear feature [1077]. This was orientated NNW-SSE, measuring 0.73m wide by 0.16m deep with vertical sides and a flat base. It was recorded at an identical maximum height as construction cut [1016], and had a soft sandy silt fill, [1076], from which no cultural material was recovered. Whilst investigation was limited, it is tentatively suggested this feature may represent part of a western street-side culvert, possibly replacing an earlier drainage feature in this location or representative of a new drain established contemporary with modifications to Street 1, as previously described.
- 5.7.2.3 An additional linear feature potentially indicative of an internal beamslot, or possibly a drainage feature during Phase 2c, was recorded in Trench 10. The feature, [25], was orientated east-west, was least 0.24m wide and was recorded at a maximum height of 27.68m OD. Its firm clayey silt fill, [24], was left *in situ*.

5.7.3 Eastern frontage of Street 1

Trench 11 (Figure 23 - sections)

- 5.7.3.1 A firm, silty clay beaten-earth surface, [2059], 0.12m thick, was recorded in Trench 11 at a height of 27.94m OD. It has been assigned to Phase 2c.
- 5.7.3.2 To the south, the surface was truncated by an east-west aligned linear feature, [2062], recorded at 27.91m OD and 0.25m wide and 0.66m deep. Its loose coal and silt fill, [2061], produced no artefactual material. Investigation of the feature was limited within the confines of the trench, however it may represent a beamslot or possibly a drainage feature.

Trench 6 (Figure 16 - sections)

- 5.7.3.3 From Trench 6, a firm silty clay, beaten-earth floor, [613], up to 0.30m in thickness and recorded at 27.90m OD, has been attributed to Phase 2c. The floor was truncated by a possibly circular pit, [612], encountered at 28.00m OD and measuring 1.25m north-south and at least 0.25m deep. Its soft clayey silt fill, [611], produced residual 2nd century pottery. The presence of the floor and pit - possibly a refuse pit - in Trench 6 indicates that building construction/modification and occupation continued to the east of Street 1 during Phase 2c.

5.8 Phase 2d: 3rd Century (Figure 6 - plan)

5.8.1 Overview Discussion

5.8.1.1 It seems that Phase 2d represents a period of decline leading up to the abandonment of Street 1 by the transition into Phase 2e. Despite this, evidence for construction/maintenance of buildings alongside the street frontages, e.g. the deposition of floor surfaces, has been attributed to Phase 2d. Indeed, alongside the eastern street frontage a complex sequence of occupation was recorded. This apparent uneven usage of the street frontages during Phase 2d may simply be a consequence of the nature of the investigations, however it is equally possible that a 'shift' in land use occurred during Phase 2d, with the eastern part of the site prioritised for usage.

5.8.2 Western frontage of Street 1

Trench 10 (Figures 17-21 - sections)

5.8.2.1 Sealing Phase 2c feature [1077] in Trench 10 was a loose, black silty ash dump/levelling layer, [1066], 0.15m thick and recorded at 28.08m OD. Some 3rd century pottery and fired clay fragments were recovered from this deposit and it is possible the material was derived from industrial activity. Other dump/levelling layers present in Trench 10 were a soft clayey silt layer, [50], with frequent sandstone fragments and moderate flecks and fragments of charcoal throughout, this 0.28m thick and also recorded at 28.08m OD and a soft clayey silt layer, [1011], 20mm thick and recorded at 28.00m OD.

5.8.2.2 Post-dating the dumping/levelling activity in Trench 10 Extension 3 was a silty clay beaten-earth floor surface, [1010], 10mm in thickness and recorded at 28.09m OD. Whilst no further evidence relating to a building was encountered at this location, the presence of this small area of surface suggests that a structure once existed there.

Trench 2 (Figure 15 - sections)

5.8.2.3 In Trench 2, a clayey silt layer, [204], with fragments of pinkish brown clay throughout, potentially represents an episode of wall collapse/demolition during Phase 2d. It was 0.16m thick and was recorded at 27.91m OD. The remaining evidence of activity to the west of Street 1 during Phase 2d in Trench 2 was a firm silty clay, beaten-earth floor, [205], up to 0.18m in thickness and recorded at 28.09m OD.

5.8.3 Eastern frontage of Street 1

Trench 11 (Figure 23 - sections)

5.8.3.1 In Trench 11, the earliest deposits assigned to Phase 2d comprised a metallised surface, [2057], which had formed from well sorted, fine sub-angular and sub-rounded stones within a clayey matrix. The surface was 60mm thick and was recorded at 27.86m OD. To the south, were the remains of a probable stone surface, [2060], consisting of sandstone fragments, up to 520mm x 250mm x 50mm, and recorded at 27.91m OD.

5.8.3.2 Post-dating probable surface [2060] were a number of dump/levelling layers, [2026], [2027], [2050] and [2058], collectively 0.18m in thickness and at a maximum height of 28.01m OD. Above these was a silty clay, beaten-earth floor, [2029]/[2049], 0.11m thick and recorded at a maximum height of 28.00m OD.

- 5.8.3.3 In addition, the aforementioned dump/levelling layers were cut by two circular stakeholes, [2052] and [2054], each 80mm in diameter and 80mm deep, which may have formed part of an east-west orientated fence/partition. The stakeholes were encountered at 27.97m OD and both had soft clayey silt fills, [2051] and [2053], respectively.

Trenches 5 & 6 (Figure 16 - sections)

- 5.8.3.4 Further evidence of activity to the east of Street 1 was recorded in Trenches 5 and 6. In Trench 5, such evidence was limited to the presence of a two dump/levelling layers, the first a compact coarse sand, [511], 0.15m thick and overlain by the second, a firm clayey silt, [508], 0.20m thick and recorded at 28.37m OD. Both layers yielded pottery of 3rd century date and small quantities of undiagnostic slag, whilst the upper layer also contained coal and charcoal and fragments of sandstone, implying the material was derived from industrial activity.
- 5.8.3.5 In Trench 6, the only possible evidence of activity during Phase 2d comprised two substantial stone slabs, [610], each 60mm thick and recorded at 27.98m OD. Although exposed within the upper fill of an earlier feature, these potentially represent the remains of a subsided Phase 2d surface.

5.9 Phase 2e: 3rd to 4th Century (Figure 7 - plan)

5.9.1 Overview Discussion

- 5.9.1.1 Phase 2e witnessed a marked change of land use on the site, whereby Street 1, existent throughout Phases 2a, 2b, 2c and 2d, evidently fell into disuse. In addition, land along the western frontage of Street 1 seems to have been largely unused, in contrast to the area of land to the east of the defunct street, which continued to be used into Phase 2e.

5.9.2 Disuse of Street 1 and its Western Frontage

Trench 10 (Figures 17-21 - sections)

- 5.9.2.1 Deposited above the uppermost layer comprising Street 1 in Trench 10 was a firm clay layer, [37], 0.14m in thickness and recorded at 28.23m OD, which may either represent a floor surface post-dating the street or a dump layer associated with its disuse.
- 5.9.2.2 Cut layer [37] was a circular pit, [40], which measured 0.50m north-south by 0.36m east-west by 0.26m deep and was recorded at a maximum height of 28.08m OD. On the base of the pit was a partially complete 3rd century cooking vessel containing a 3rd century rimmed bowl. The two vessels lay within a silty clay fill, [39], which contained occasional fragments of daub and yielded a small square-sectioned, cylindrical 3rd-4th century yellow glass bead (SF14). Assessment of a bulk sample of the fill identified a single charred barley grain, small quantities of oak charcoal and ash, semi-vitrified waste, clinker, coal, unburnt bone and small quantities of hammerscale. The evident deliberate placement of the vessels suggests a form of structured deposition, e.g. an offering. Given that the pit truncated the latest version of Street 1, it may be that the putative offering may have been associated with disuse and 'closure' of the route.
- 5.9.2.3 Also post-dating the dump/levelling deposits was a sub-rounded pit or posthole, [1065], which measured at least 0.34m north-south by 0.32m east-west by 0.11m in depth. It had a firm silty clay fill, [1064], from which no cultural material was retrieved.

- 5.9.2.4 A number of dump layers also post-dated disuse of Street 1 in Trench 10, further indicating it was no longer in use during Phase 2e. The earliest of these, layer [1022], comprised silty clay up to 0.15m thick and recorded at a maximum height of 28.00m OD. This was overlain by a clayey silt layer, [92], up to 0.11m thick and recorded at a maximum height of 28.06m OD. The uppermost of this sequence was a clayey silt layer, [91], 0.27m thick and recorded at a maximum height of 28.32m OD. This deposit produced a spindle whorl (SF7) and a gaming counter (SF8) manufactured from reused 2nd/3rd century pottery.
- 5.9.2.5 To the west of the disused street in Trench 10, dumped material overlay the Phase 2d horizon. These comprised a soft clayey silt layer, [1049], up to 50mm thick and recorded at a maximum height of 28.05m OD, and an overlying soft clayey silt layer, [51], 0.12m thick and recorded at a maximum height of 28.17m OD. A single sherd of late 2nd century samian mortarium and a complete shale bracelet (SF10) were recovered from layer [51]. In addition, three clayey silt layers, [21], [30] and [1009], all containing 3rd century pottery and recorded at a maximum height of 28.19m OD, were also recorded. The layers collectively indicate that the western part of the site was utilised relatively little during Phase 2e. This inactivity, which had commenced in Phase 2d, evidently continued with the disuse of Street 1 during Phase 2e.

Trench 2 (Figure 15 - sections)

- 5.9.2.6 In Trench 2, a clayey silt dump layer, [208], up to 0.16m thick and post-dating Phase 2d surface [205], was recorded. No other deposits attributable to Phase 2e were recorded in this trench. The scarcity of archaeologically identifiable activity and the nature of the layer further allude to a period of disuse and inactivity in the western part of the site.

5.9.3 Continued Usage of the Eastern Frontage

Trench 11 (Figure 23 - sections)

- 5.9.3.1 A dump/levelling layer, [2045], up to 0.10m thick and recorded at a maximum height of 28.00m OD, represents the earliest Phase 2e activity in Trench 11. This was subsequently truncated by an east-west aligned construction cut, [2048], at least 0.22m wide and 0.33m deep, which contained a sandstone and clay wall foundation, [2047]. The existence of masonry within Trench 11 during Phase 2e suggests that, unlike the western part of the site, as described above, usage of land to the east was probably less affected by disuse of Street 1.
- 5.9.3.2 Ascertaining the longevity of wall [2047] is impossible, however its truncation by an east-west orientated robber trench, or possible drainage gully, during Phase 2e suggests that its usage was relatively short-lived. The robber trench, [2044], was 'U' shaped in profile, measured 0.68m wide by up to 0.14m deep and was recorded at a maximum height of 27.97m OD. A soft clayey silt backfill, [2043], produced 3rd century pottery.
- 5.9.3.3 At the northern extent of Trench 11, an east-west aligned linear feature, [2056], 0.22m wide by 0.32m deep and recorded at a maximum height of 27.90m OD, was also assigned to Phase 2e. The feature contained a soft sandy silt fill, [2055], with frequent sub-angular and angular stones. This feature may represent a second Phase 2e robber trench in Trench 11.

- 5.9.3.4 Post-dating the southernmost robber trench was a firm clayey silt dump/levelling layer, [2023], 70mm thick and recorded at a maximum height of 28.04m OD. The layer contained pottery of 2nd/3rd century date and fragments of what appeared to be a fired clay lining. A probably contemporary dump/levelling layer, [2046], 50mm thick and recorded at a maximum height of 28.14m OD was also recorded in Trench 11. This contained fragments of *opus signinum* and daub, likely indicating that its deposition was associated with an episode of demolition.
- 5.9.3.5 Layer [2023] was truncated by a possibly circular feature, [2021], which measured 0.73m north-south by at least 0.44m east-west and was 70mm deep. The feature was recorded at a maximum height of 28.03m OD and contained a firm clayey silt fill, [2020], within which were fragments of sandstone slab (up to 220mm x 200mm x 50mm in size). Some of the fragments were 'blackened', indicating exposure to heat and perhaps suggesting that the feature represents the remains of an oven or hearth. Medieval pottery from the feature is considered to be intrusive.
- 5.9.3.6 Further south in Trench 11, a linear/square construction cut, [2065], measuring 1.17m north-south by at least 0.70m east-west and 0.21m deep, was recorded. Recorded at a maximum height of 27.84m OD, it contained – against its northern, southern and eastern sides – the remains of a sandstone lining, [2093], which comprised upright, roughly hewn slabs (slabs up to 450mm x 230mm x 50mm). A soft clayey silt fill, [2064], within the stone lining yielded 3rd century pottery, including several sherds of a decorated Samian vessel. Also recovered were fragments of fired clay lining, undiagnostic metalliferous slag and a nail shank (SF107) and it is thought probable that the feature originally had an industrial function and was later utilised for the disposal of waste material.

5.10 Phase 2f: 3rd to 4th Century (Figures 8 & 9 - plans)

5.10.1 Overview Discussion

- 5.10.1.1 Phase 2f represents a distinct shift in the spatial organisation of the site as well as being the final episode of site use during the Roman period. However, despite being the final sub-phase of Roman activity, Phase 2f was nonetheless a period of continued activity and structural development. Of particular interest is evidence that suggests an east-west orientated street, Street 2, was constructed, with evidence for associated activity alongside its northern frontage.

5.10.2 Street 2 and its Northern Frontage

Trench 11 (Figure 23 - sections)

- 5.10.2.1 A stone surface, [2038], up to 0.16m thick, was recorded in the northern part of Trench 11 (Plate 11). It was constructed from a mixture of well-sorted fine and medium rounded and sub-rounded stones and small to medium sandstone fragments, within a silty matrix. A quern fragment with harp grooving (SF104) and 3rd century pottery were recovered from the surface. It was recorded at a maximum height of 28.05m OD, falling away to 27.58m OD at its southern extent, this likely reflecting a camber and suggesting that it was part of a roughly east-west orientated street or pathway, Street 2.
- 5.10.2.2 Beyond Street 2, a remnant of a flagstone surface, [2024], was recorded, at a maximum height of 28.21m OD. The flagstones measured up to 200mm x 160mm x 30mm. It was sealed by a firm clayey silt dump/levelling layer, [2022]/[2042], this 0.16m thick. An additional dump/levelling layer, [2041], only 40mm thick, was recorded adjacent to the southern edge of Street 2.

- 5.10.2.3 Truncating both surface [2038] and dump/levelling layer [2022]/[2042], was an east-west aligned linear feature, [2040], 0.78m wide, 0.29m deep and recorded at a maximum height of 28.25m OD. Its compact fill, [2039], comprised sub-rounded boulders and roughly hewn sandstone blocks, either a structural foundation or backfill material. It is possible that the feature was a construction cut, although it seems more probable that it relates to an episode of 'robbing-out', possibly denoting the removal of a wall previously associated with a building fronting the northern edge of Street 2.
- 5.10.2.4 A firm silty clay layer, [2036], up to 0.10m thick and recorded at a maximum height of 28.13m OD, was recorded overlying the surface, [2038], of Street 2. The layer may represent make-up associated with modification of the street or a dump layer associated with disuse of the street prior to the end of Phase 2f.
- 5.10.2.5 Perhaps supporting the interpretation that the aforementioned layer represents an episode of street maintenance was the presence of a stone surface, [2016], overlying it (Plate 10). This was c. 0.20m thick and was recorded at a maximum height of 28.33m OD. The surface comprised small, medium, and large sandstone fragments and some medium cobbles in a silty clay matrix. The layer also sealed the previously described robber cut, [2040], a relationship which could indicate that Street 2 was widened prior to the end of Phase 2f.

Trench 10 (Figures 17-21 - sections)

- 5.10.2.6 Post-dating the Phase 2e dump/levelling layers which sealed Street 1, was a mid brownish yellow clay layer, [90], 0.12m thick and recorded at a maximum height of 28.19m OD. This is interpreted as being the remains of a beaten-earth floor. Similar clay layers, [64] and [65], were recorded in areas previously occupied by Street 1 elsewhere in Trench 10, these at a maximum height of 28.26m OD and also interpreted as the remains of beaten-earth floors. If this interpretation is correct, it would appear that by Phase 2f, the area of land previously in use as Street 1 may have been occupied by buildings, which fronted the northern edge of a continuation of Street 2.
- 5.10.2.7 Within an area previously on the western frontage of Street 1, structural activity was recorded which has also been assigned to Phase 2f. In Trench 10 a roughly north-south orientated construction cut, [43], 1.10m in width by 0.35m deep and recorded at a maximum height of 28.15m OD, truncated the western edge of the earlier street. The steep-sided, flat-based construction cut contained three fills, [42], [1061] and [1080], which together formed a structural foundation. The deposits comprised strongly cemented sub-rounded stones up to 0.13m in diameter within a sandy silt matrix and large sub-rounded boulders within a soft clayey silt matrix. Alongside pottery of late 2nd/3rd century date, a fired clay object representative of either a triangular loom-weight or an oven brick (SF110) was also retrieved; this may be of Late Iron Age date.
- 5.10.2.8 Lying above the foundation was a single course of facing stones, [41], and an associated rubble core, [1087], which together measured 0.70m wide by 0.10m thick and were recorded at a maximum height of 28.15m OD. The wall facing masonry comprised random sandstone rubble (stones up to 390mm x 310mm x 130mm) bonded with coarse sandy silt, with weakly cemented fine and medium sub-rounded and angular stones forming the rubble core. Pottery of 2nd century date and a 1st/2nd century coin (SF9) were recovered from the wall, these presumably residual in context, possibly having been deliberately placed during an episode of wall construction/modification.

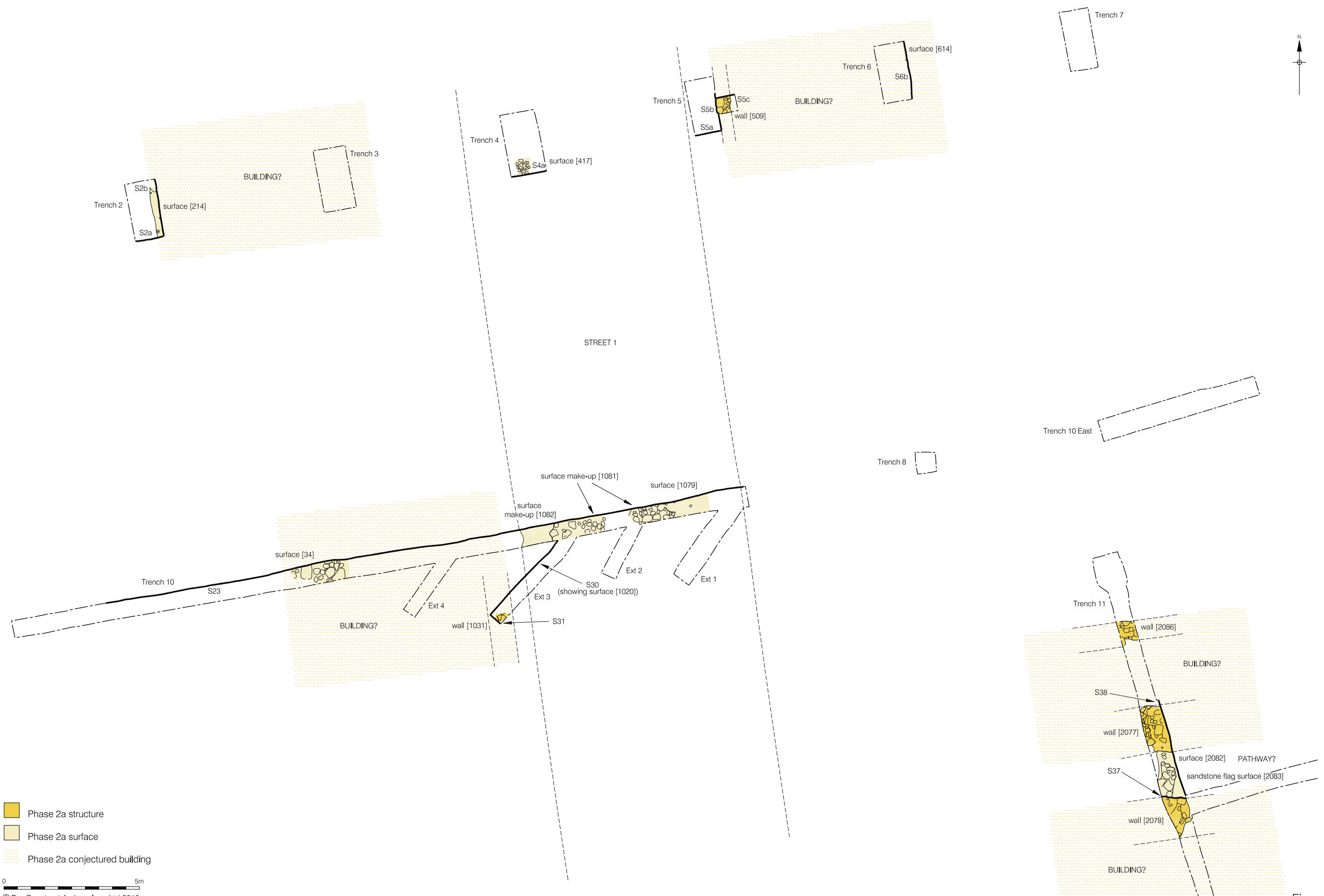
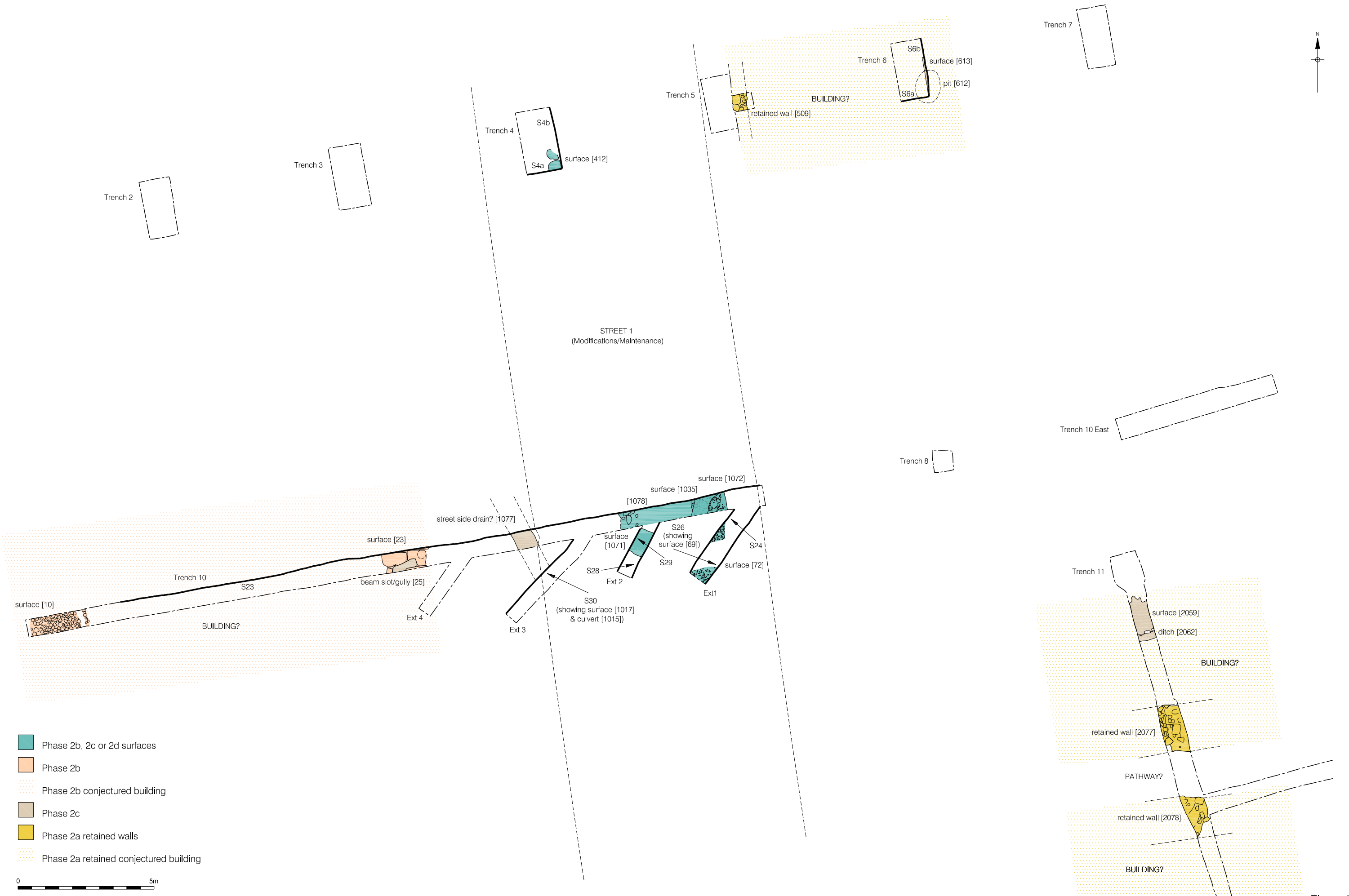


Figure 4
 Phase 2a
 Street 1 and associated frontage development
 1:125 at A3



- Phase 2b, 2c or 2d surfaces
- Phase 2b
- Phase 2b conjectured building
- Phase 2c
- Phase 2a retained walls
- Phase 2a retained conjectured building

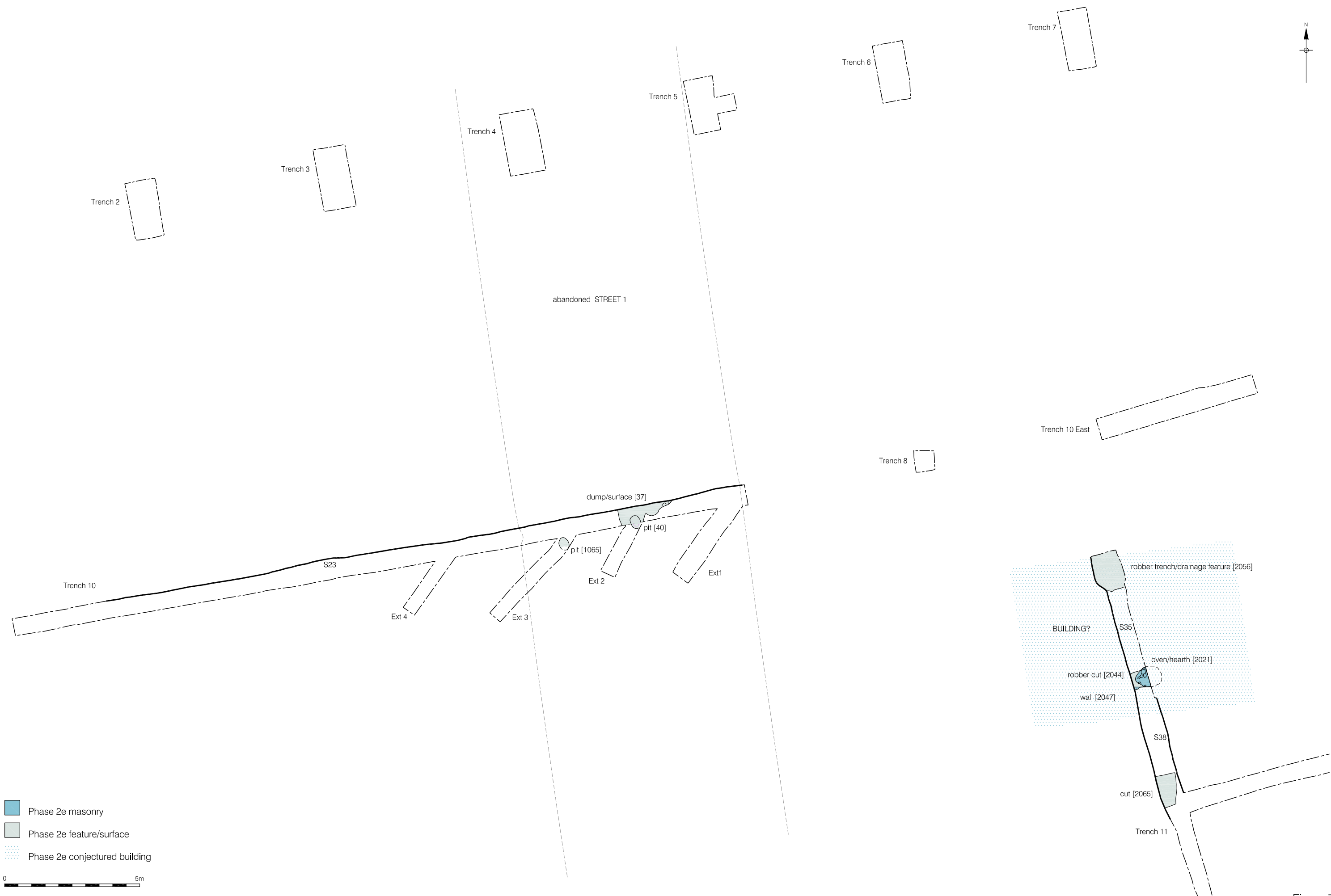
0 5m

© Pre-Construct Archaeology Ltd 2010

Figure 5
Phases 2b & 2c
Street 1 and associated frontage modifications
1:125 at A3



Figure 6
 Phase 2d
 Street 1 and associated frontage further modifications
 1:125 at A3

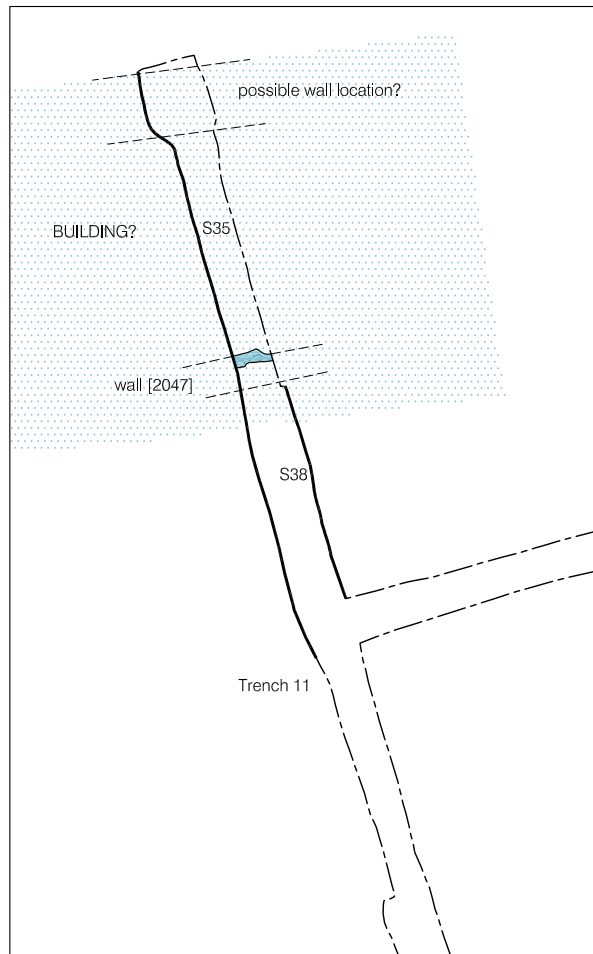


■ Phase 2e masonry
 ■ Phase 2e feature/surface
 ■ Phase 2e conjectured building

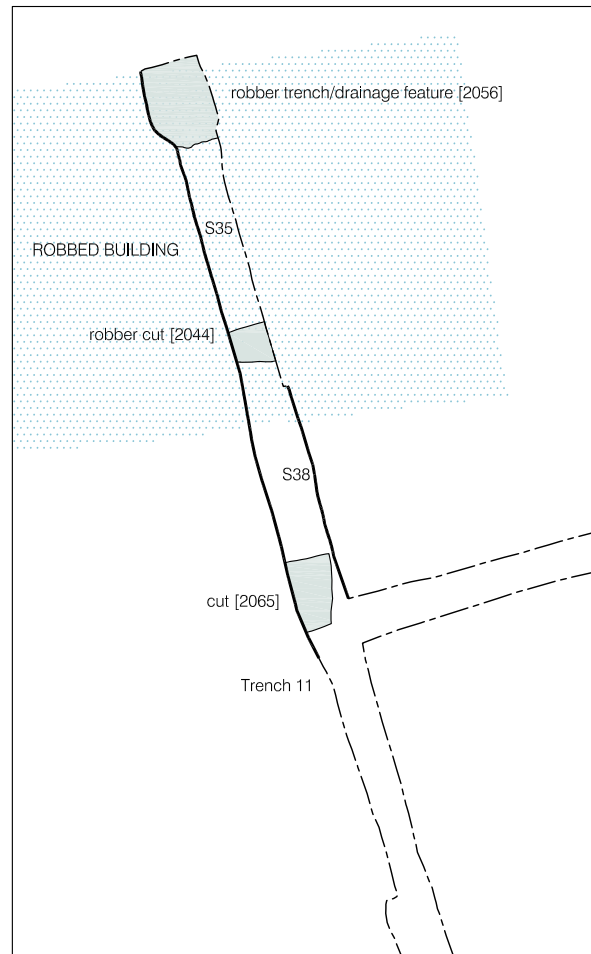
0 5m

© Pre-Construct Archaeology Ltd 2010

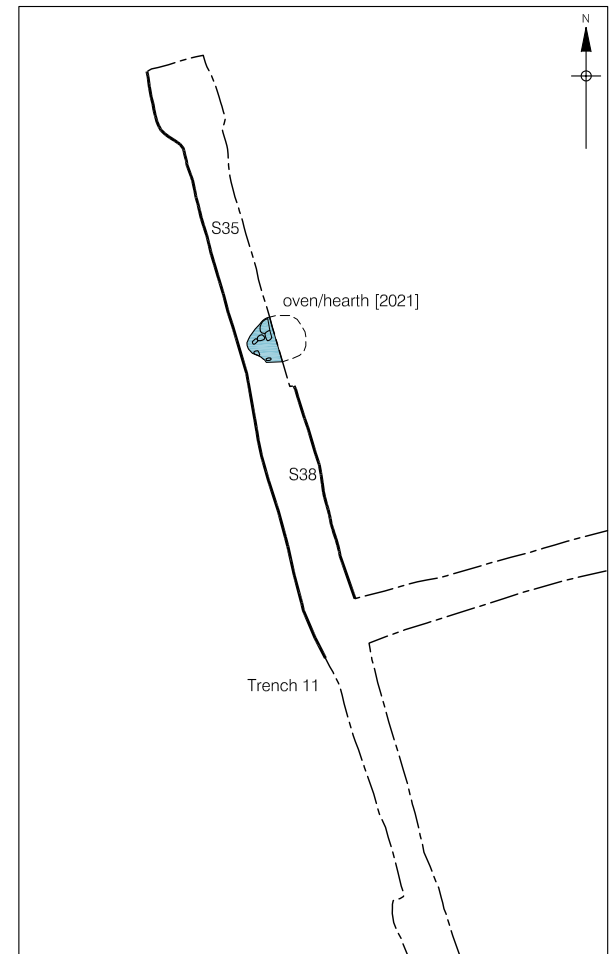
Figure 7
 Phase 2e
 activity post-dating usage of Street 1
 1:125 at A3



Phase 2e (i)



Phase 2e (ii)



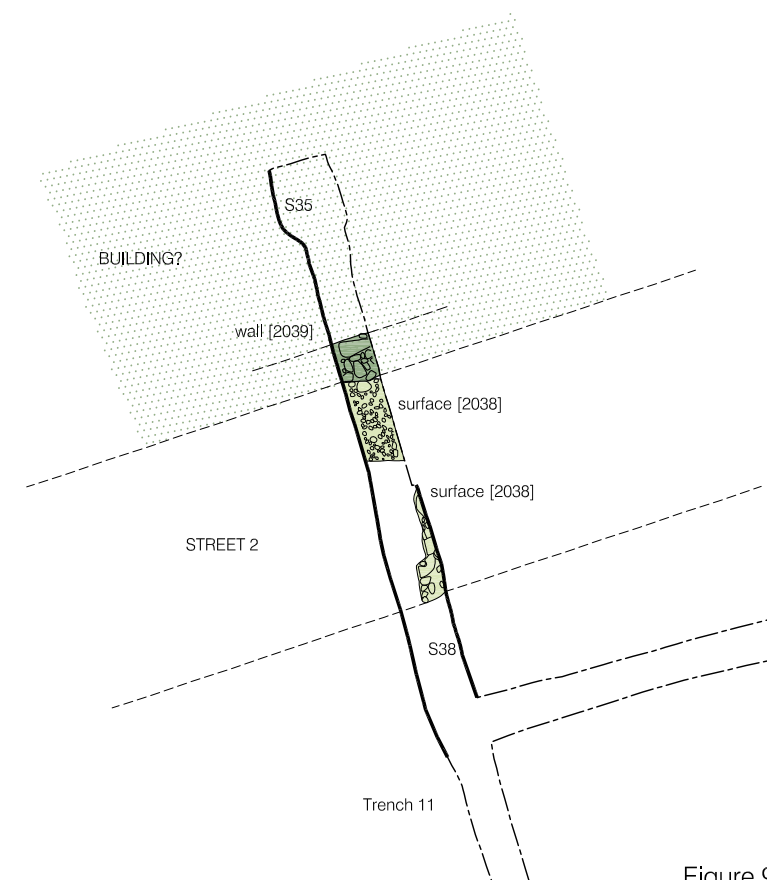
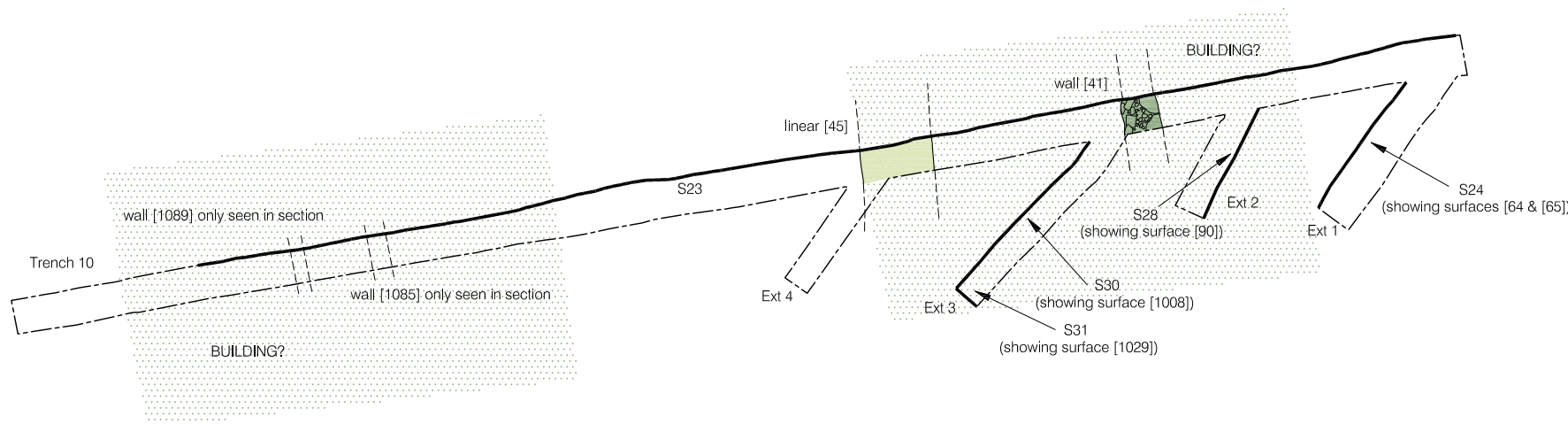
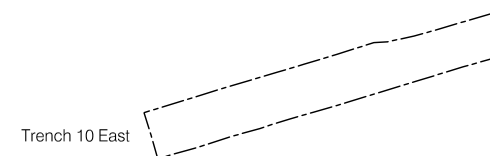
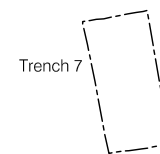
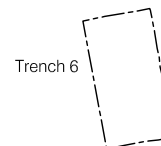
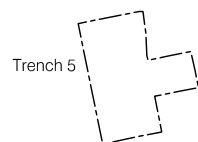
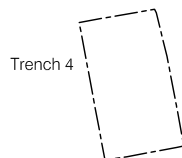
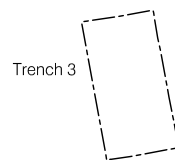
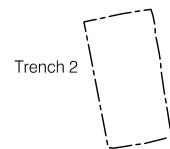
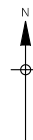
Phase 2e (iii)




- Phase 2e masonry
- Phase 2e feature
- Phase 2e conjectured building

0 5m

© Pre-Construct Archaeology Ltd 2010

Figure 8
Phase 2e
sub-phasing in Trench 11
1:125 at A4




-  Phase 2f structure
-  Phase 2f feature
-  Phase 2f conjectured building

0 5m

© Pre-Construct Archaeology Ltd 2010


Figure 9
Phase 2f
Street 2 and associated frontage development
1:125 at A3



Trench 8 

Trench 10 East 



 Phase 2f feature

0  5m

© Pre-Construct Archaeology Ltd 2010

Figure 10
Phase 2f
later sub-phasing in Trench 11
1:125 at A4

- 5.10.2.9 Approximately 2.70m to the west of wall [41] in Trench 10 was another north-south orientated construction cut, [45], which contained three foundation fills, [46], [48] and [1069], comprising compact clayey silt and silty clay with frequent fine and medium sandstone fragments and other stones throughout. The steep-sided, flat-based cut was 1.38m wide and 0.41m deep and was recorded at a maximum height of 28.18m OD.
- 5.10.2.10 At the western extent of Trench 10 was a broad, steep-sided, flat-based construction cut, [19], measuring 1.80m in width by 0.20m in depth and recorded at a maximum height of 27.85m OD. Two north-south aligned walls, [1085] and [1089], had been constructed against the eastern and western sides of the construction cut, respectively. Both walls were similarly constructed with random sandstone rubble (stones up to 360mm x 310mm x 110mm in size) and boulders, bonded with clayey silt. Limitations on the degree of investigation of this area ensured that a definitive interpretation of these remains is impossible. It may be that the walls relate to a Phase 2f building, although it remains equally possible that the masonry may relate to a subterranean structure or drainage channel. The presence of a soft humic clayey silt, [17], infilling the internal space between the two walls perhaps supports the latter interpretation.
- 5.10.2.11 The remaining deposits in Trench 10 (in Extension 3) to be assigned to Phase 2f are the remains of two beaten-earth floor surfaces, [1008] and [1029]. The former was only 50mm thick and was recorded at a maximum height of 28.16m OD, whilst the latter was a more substantial 0.13m thick and was recorded at a maximum height of 28.10m OD. Whilst it is difficult to interpret these floor layers in isolation, their presence further eludes to activity within the east of the site during Phase 2f.

5.11 Phase 3a: Post-Roman-Medieval (Figures 11 & 12 – plans)

5.11.1 Overview Discussion

- 5.11.1.1 Phase 2f marked the final archaeologically evident Roman activity and thereafter the site seems to have been abruptly abandoned as a place for occupation, with existent masonry buildings either demolished or left to degrade *in situ*. The dump layers and accumulated soils assigned to Phase 3a could date to any time post-dating Roman activity, e.g. the 3rd century, until the eventual utilisation of the site during the medieval period, e.g. the 12th century (see Phase 3b).

5.11.2 Dumping and Demolition

Trenches 1, 10 & 11 (Figures 15, 17-21 & 23 - sections)

- 5.11.2.1 Two layers recorded in Trench 10 have been interpreted as the earliest remains attributable to Phase 3 in that part of the site. The first was a soft clayey silt layer, [47], up to 0.21m thick and recorded at a maximum height of 28.35m OD, and the second was a firm silty clay layer, [1039], only 60mm thick and recorded at a maximum height of 28.25m OD. Both layers contained frequent fragments of sandstone and it is probable that both were representative of demolition deposits associated with the removal/degradation of earlier structures.
- 5.11.2.2 In addition to the likely demolition layers, a number of clayey silt dump layers in Trench 10 have also been assigned to Phase 3a. These comprised: layer [1007], 40mm thick and recorded at a maximum height of 28.24m OD; layer [1028], 50mm thick and recorded at a maximum height of at 28.16m OD; and layer [1054], 0.12m thick and recorded at a maximum height of 28.22m OD.

5.11.2.3 Similar dump layers recorded in Trench 11 have also been assigned to Phase 3a. These comprised: a mixed silty clay and sandy silt layer, [2008], 0.53m thick and recorded at a maximum height of 27.84m OD and; a silty clay layer, [2010], 0.29m thick and recorded at a maximum height of 27.71m OD; a clayey silt layer, [2011], 0.23m thick and recorded at a maximum height of 28.42m OD. In addition, a dump layer [112], 0.29m thick and encountered at 27.83m OD, was recorded in Trench 1. The presence of medieval pottery within the majority of these deposits may relate to the date of deposition, although it is also possible that this material was 'worked' into the deposits during Phase 3b activity, as described below).

5.11.3 Developed Soils

Trenches 3, 6 & 10 (Figures 15-21 - sections)

5.11.3.1 Post-dating Phase 3a demolition and dump layers in Trench 10 was a group of clayey silt and silty clay layers, [3], [7], [8], [9], [16], [26], [79], [84] and [86], with a combined thickness of up to c. 0.45m. These deposits were recorded at a maximum height of 28.33m OD and, as a group, produced pottery of 12th and 13th century date. A similar, clayey silt layer, [309], 0.36m thick and recorded at a maximum height of 28.25m OD, was recorded in Trench 3, whilst a clayey silt layer, [609], 0.31m thick and recorded at a maximum height of 28.26m OD, was recorded in Trench 6.

5.11.3.2 Collectively, these deposits represent one or more 'developed soils', which likely formed by the accumulation of material when the site was abandoned in the post-Roman era. Medieval pottery within some of the deposits was likely introduced intrusively by various activities during the medieval period.

5.12 Phase 3b: Medieval (Figures 11 & 12 - plans)

5.12.1 Overview Discussion

5.12.1.1 Evidence was recorded to indicate that the site was used once again during the medieval period (Phase 3b). This evidence took the form of pits, ditches and possible structural remains. It is suggested that, during the medieval period, much of the site was probably in agricultural/horticultural use, with some structural development to the north, towards Westgate Road.

5.12.2 Buildings

Trenches 1 & 11 (Figures 15 & 23 - sections)

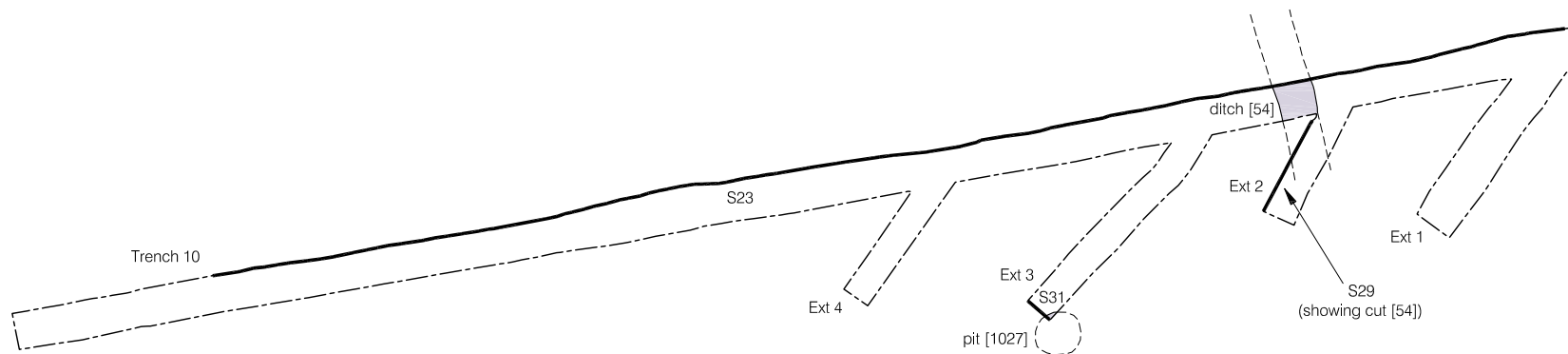
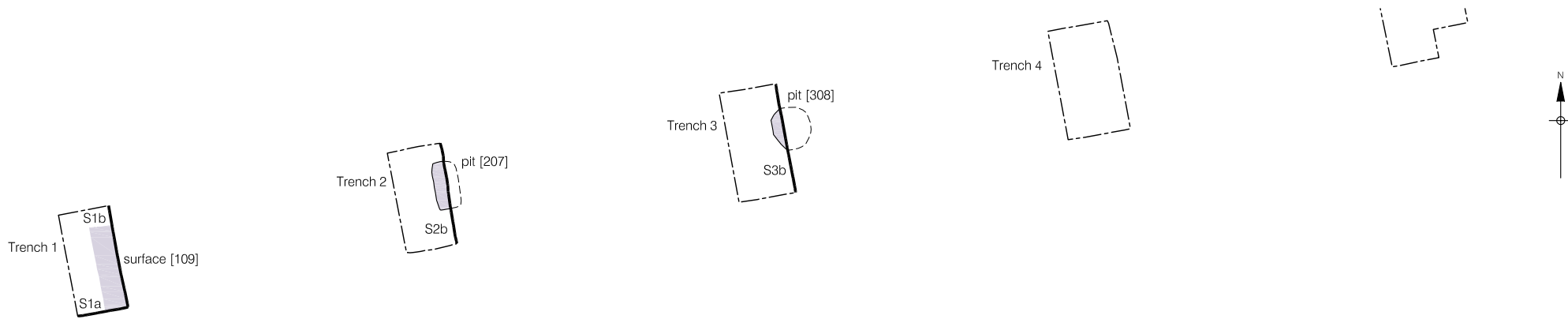
5.12.2.1 Evidence of a medieval building was recorded in Trench 11. A silty clay levelling layer, [2037], 70mm thick and recorded at a maximum height of at 28.00m OD, was overlain by a stone surface, [2035], comprised sandstone fragments (up to 120mm x 110mm x 50mm), within a silty clay matrix and recorded at a maximum height of 28.09m OD. The surface was overlain in places by a compact spread of coarse sandy lime-mortar, [2007], c. 30mm thick and recorded at a maximum height of 28.04m OD, this possibly representing patching of the surface during its usage (Plate 15). Some medieval pottery was recovered from these strata, broadly suggesting that a medieval building may have existed in this part of the site.

- 5.12.2.2 Further east in Trench 11, two narrow, north-south orientated linear features truncated a Phase 3a deposit. These could represent beamslots and/or drip gullies associated with the same structure. The westernmost of the two, feature [2031], was 0.26m wide, 0.26m deep and was recorded at a maximum height of 27.84m OD. Its clayey silt fill, [2030], yielded no artefactual evidence. The second feature, [2019], was 0.40m wide, 0.20m deep, and was recorded at a maximum height of 27.83m OD. Its silty sand fill, [2018], again produced no dating evidence.
- 5.12.2.3 Both linear features were sealed by a clayey silt layer, [2015], with frequent sandstone fragments throughout, 0.14m thick and recorded at a maximum height of 27.92m OD. A small assemblage of 12th century pottery was recovered from this deposit; it is possible that deposition of this material relates to demolition of a medieval structure.
- 5.12.2.4 Possible evidence eluding to the presence of medieval structures was also found in Trench 1, where a cobble surface, [109], comprising sub-rounded cobbles and fragmented sandstone within a silty clay matrix, was recorded at a maximum height of 27.95m OD. The surface measured up to 0.15m in thickness and yielded some medieval pottery. This surface potentially indicates that either a building or a yard area occupied this part of the site during the medieval period.

5.12.3 Drainage and Pitting

Trenches 2, 3, 10 & 11 (Figures 15, 17-21 & 23 - sections)

- 5.12.3.1 Post-dating possible medieval demolition layer [2015] in Trench 11 was a north-south aligned ditch, [2034], c. 2.0m wide, 0.48m deep and recorded at a maximum height of 27.90m OD. Whilst the base of the ditch could not be exposed, at least two fills, [2032] and [2033], were recorded, both of which produced medieval pottery.
- 5.12.3.2 Further west in Trench 11 was another north-south orientated ditch, [2071], this at least 0.60m wide, 0.92m in depth and recorded at a maximum height of 27.73m OD. It had two soft clayey silt fills, [2066] and [2067], from which medieval pottery was recovered, along with an unidentifiable iron object (SF121). Assessment of bulk samples of the ditch fills yielded quantities of charred oat, wheat, barley and indeterminate cereals and uncharred nutshells, fruitstones, an apple pip, bracken fronds and weed seeds. This material collectively suggests that the ditch infilled both by natural accumulation and deliberate dumping of waste material.
- 5.12.3.3 In Trench 10, another roughly north-south orientated ditch, [54], was recorded. This feature was 0.70m wide, 0.31m deep and was recorded at a maximum height of 28.32m OD. It had three fills, [38], [52] and [53], which generally comprised sandy silts and clay with frequent coal inclusions. Residual Roman artefacts, including two nails (SF2 and SF3) and an unidentifiable iron strip (SF4), were retrieved from the ditch fills, whilst iron smithing slag was also recovered.
- 5.12.3.4 Truncating the upper Phase 3a horizon at the southern extent of Trench 10 Extension 3 was a probably circular pit, [1027]. This measured at least 0.30m NE-SW by 0.20m NW-SE by 0.28m in depth and it was recorded at a maximum height of 28.16m OD. A soft silt fill, [1026], yielded no artefactual material, although it is assumed that the feature is of medieval date.
- 5.12.3.5 Another pit, [80], measuring at least 0.80m north-south by 0.10m east-west by 0.55m deep, was recorded at the eastern extent of Trench 10 East. This feature was recorded at a maximum height of 27.93m OD and contained a clayey silt fill, [56], from which a sizeable assemblage of 12th-13th century pottery was retrieved, in addition to fragments of wood, shell and bone.

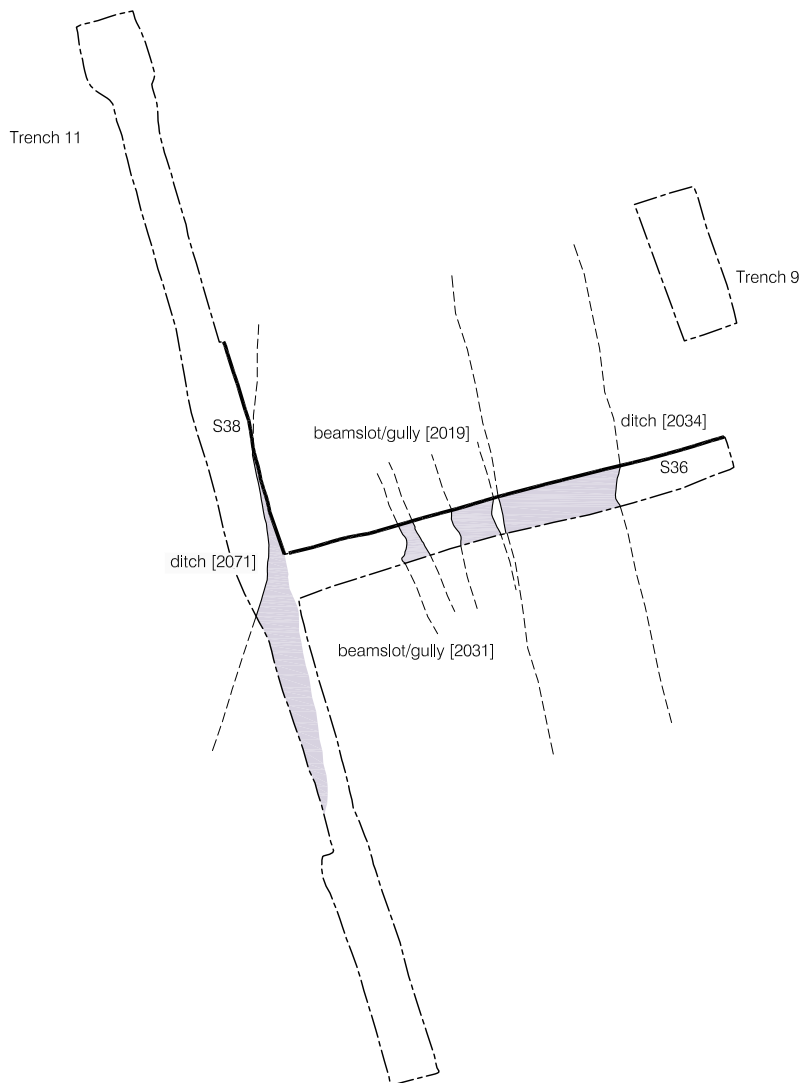



Phase 3 features



© Pre-Construct Archaeology Ltd 2010

Fig 11
Phase 3b
western part of site
1:125 at A4

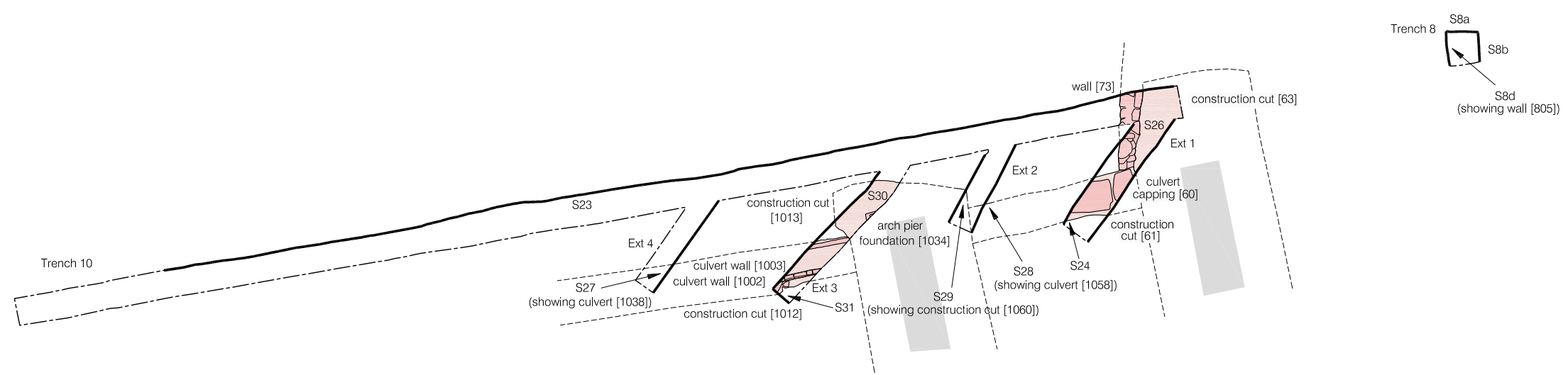
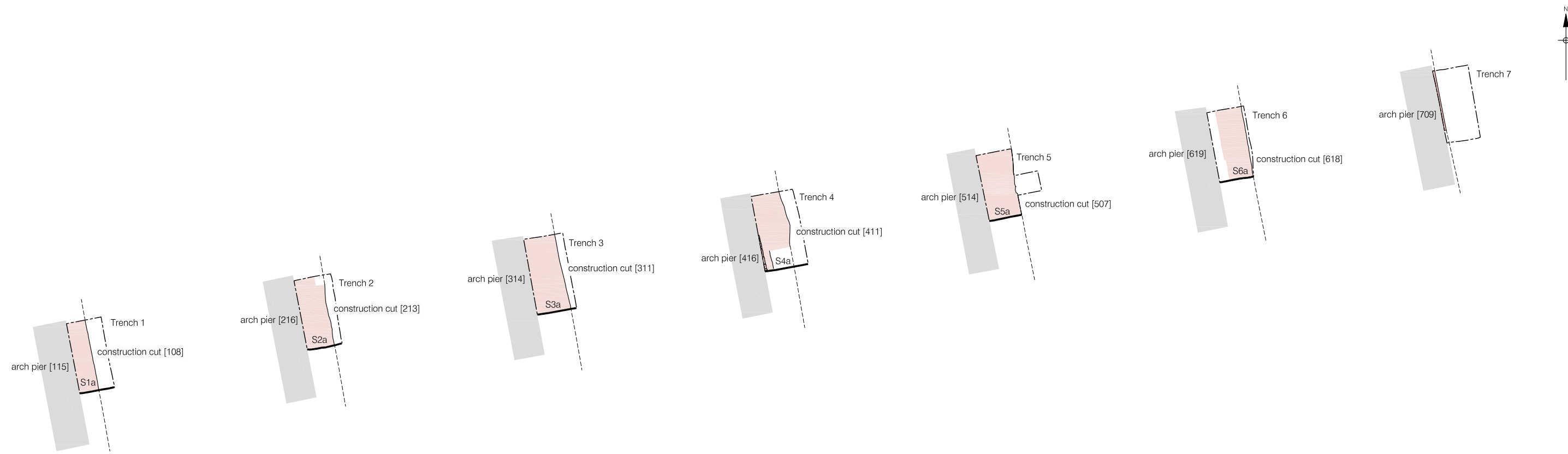


 Phase 3 features



© Pre-Construct Archaeology Ltd 2010

Figure 12
Phase 3b
eastern part of site
1:125 at A4

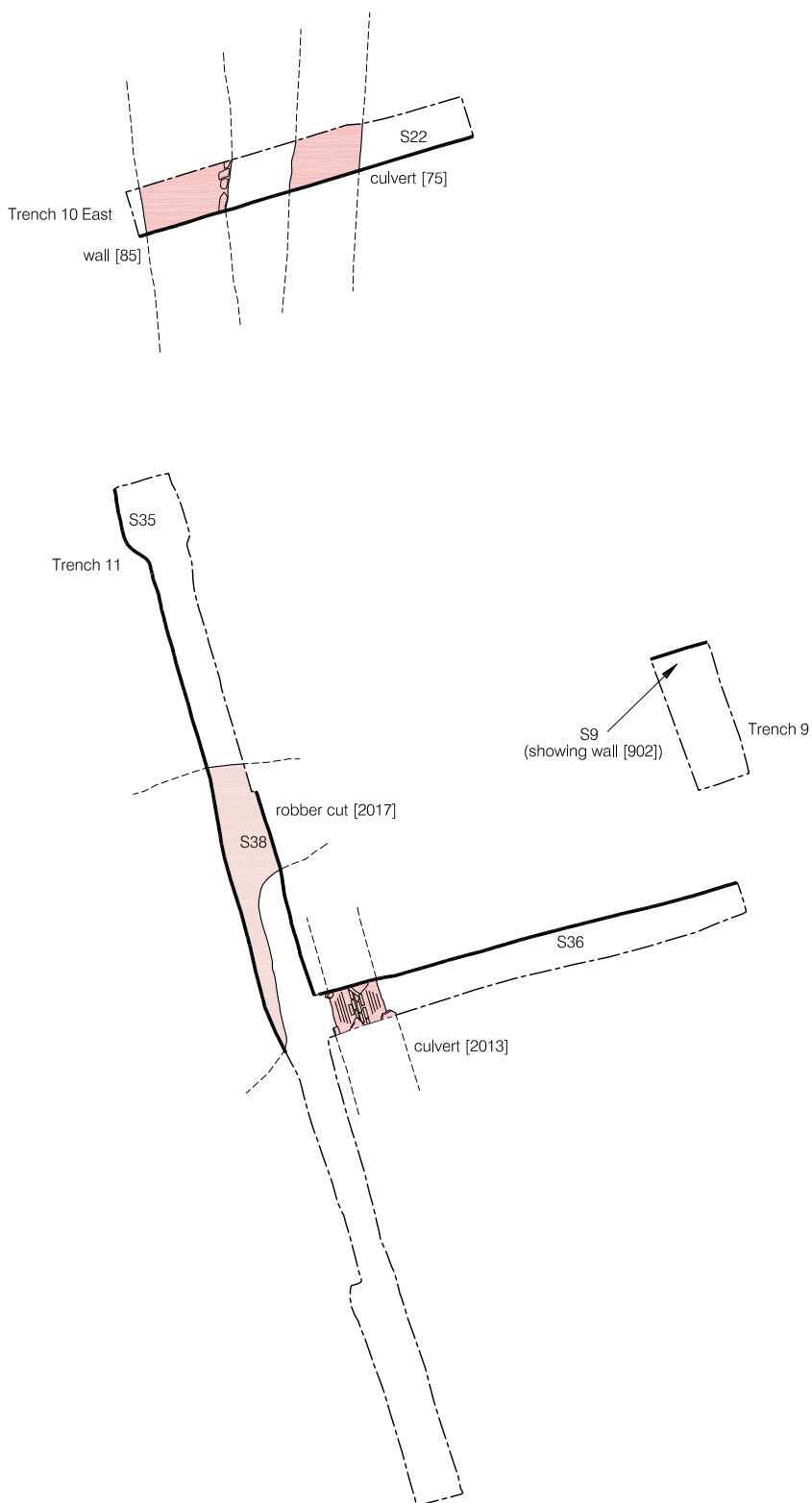




- Phase 4 structure
- other Phase 4 features



© Pre-Construct Archaeology Ltd 2010

Figure 13
Phase 4
western part of site
1:125 at A3



-  Phase 4 structure
-  other Phase 4 features

0 5m

© Pre-Construct Archaeology Ltd 2010

Figure 14
Phase 4
eastern part of site
1:125 at A4

- 5.12.3.6 In Trench 2, a pit, [207], measuring at least 0.90m north-south and up to c. 0.50m deep, was encountered at a maximum height of 28.21m OD. Two fills were recorded, the earlier of which comprised firm humic silt, [215], up to 80mm thick, whilst the upper deposit, [206], comprised soft silty clay up to 0.38m thick. Occasional fragments of medieval pottery were retrieved from the upper fill, whilst assessment of a bulk sample of the primary fill found evidence of charred oat and bread wheat grain, as well as uncharred seeds and fruit-stones, e.g. sloe, bramble, sheep's sorrel, henbane, common nettle, sedges, cinquefoils and goosefoot.
- 5.12.3.7 The remaining evidence of activity during the medieval period was recorded within Trench 3 and comprised a probable refuse pit, [308], measuring 0.93m north-south by at least 0.22m east-west and up to 0.22m deep. This was recorded at a maximum height of 28.27m OD and contained a soft clayey silt fill, [307], from which a single sherd of medieval pottery was retrieved.

5.13 Phase 4: Late Post-medieval and Early Modern (Figures 13 & 14 - plans)

5.13.1 Overview Discussion

- 5.13.1.1 The earliest activity during Phase 4 was characterised by removal of earlier structural remains and ground-raising, followed by the re-development of the site. This activity dates broadly to the 18th/19th century. Subsequently, 18th/19th century buildings were demolished in the later 19th century, this activity seemingly contemporary with construction of the railway viaduct and installation of a subterranean drainage system.

5.13.2 'Robber' Cuts and Ground-raising

Trenches 10 & 11 (Figures 17-21 & 23 – sections)

- 5.13.2.1 Trench 11 contained what may have been the earliest post-medieval activity at the site, in the form of a substantial, irregularly shaped feature, [2017], probably a 'robber' cut (Plate 12). It extended at least 4.10m north-south and was at least c. 1.20m deep. Recorded at a maximum height of 28.35m OD, it contained a loose sandstone rubble fill, [2009], from which post-medieval pottery, residual Roman pottery, clay tobacco pipe and a clay marble were recovered. It is possible that this feature represents efforts to remove Roman or medieval structural material for reuse. Fill [2009] was overlain by a loose sandy silt dump/levelling layer, [2006], up to 0.75m thick.
- 5.13.2.2 Dump/levelling layers, [6], [14], [15], [78], [88] and [1040], were recorded in Trench 10, ranging from 0.30m-0.50m in thickness and encountered at heights of c. 28.40m OD. Some of these dump deposits contained brick and sandstone masonry rubble and it is probable they represent ground-raising/levelling. A sequence of similar dump/levelling layers, [2079], [2098], and [2099] were recorded in section in the east-west arm of Trench 11.

5.13.3 18th/19th Century Buildings

Trenches 8 & 10 (Figures 16-21 – sections)

- 5.13.3.1 Truncating levelling layer [88] in Trench 10 East was a probably north-south orientated construction cut, [81], containing a 'stepped' sandstone wall, [85]. The wall comprised three courses of sandstone blocks, dressed and bonded with lime mortar, up to c. 0.45m high. Due to the limitations of the investigation area, the width of the wall was not ascertained, but it was recorded at a maximum height of 28.17m OD. This structure likely represents a basement wall of a post-medieval building. Cartographic evidence from the 19th century denote buildings on the site, thus it is probable that these remains represent an element of one of these historically attested buildings.
- 5.13.3.2 Further west, in the main portion of Trench 10, was a north-south orientated construction cut, [74], containing a sandstone block wall, [73], surviving to a height of c. 0.50m in three courses. Essentially identical in construction to wall [85], this potentially represents part of the basement of the same building as previously described. Wall [73] was recorded at a maximum height of 28.27m OD, but again its width was not ascertained.
- 5.13.3.3 Further structural evidence was recorded in Trench 8, immediately to the east of the main portion of Trench 10. These remains comprised a north-south aligned wall, [805], which survived to a height of c. 0.60m, with its uppermost part recorded at a maximum height of 28.31m OD. Again the wall had been constructed with sandstone blocks. In this case, however, concrete render had been applied to the face of the masonry, thereby obscuring most of the detail. It could potentially represent part of the same building as previously described.
- 5.13.3.4 In Trench 8, a demolition layer, [804], predominantly brick rubble with frequent pottery, glass and iron objects throughout, covered the aforementioned structure. Up to c. 0.75m thick, this layer probably represents demolition of the building; it was recorded at a maximum height of c. 28.45m OD.

5.13.4 19th Century Culverts

Trenches 10 & 11 (Figures 17-21 & 23 - sections)

- 5.13.4.1 The remains of a series of subterranean culverts were recorded in Trenches 10 and 11, these likely post-dating the previously 18th/19th century buildings. The first, recorded in Trench 11, was a roughly north-south aligned arched brick culvert, [2013], within a construction cut, [2014], and recorded at a maximum height of 28.66m OD. It had been constructed using unfrogged red bricks (260mm x 200mm x 100mm) bonded with a hard mortar. The culvert was c. 1.75m wide by c. 1.25m high and the main construction cut backfill, [2012], comprised friable sandy silt with brick and mortar inclusions.
- 5.13.4.2 A similarly constructed arched brick culvert, [75], was recorded in Trench 10 East, this within a roughly north-south orientated construction cut, [83], this with a loose silty rubble backfill, [82]. The culvert, recorded at a maximum height of 28.04m OD, was c. 1.90m wide by at least 0.70m high.
- 5.13.4.3 The remains of an east-west aligned culvert were recorded intermittently in the main portion of Trench 10. This comprised brick sides walls capped with stone slabs, [60], [1001], [1002], [1003], [1048] and [1056], with the various sections contained within construction cuts, [61], [1012], [1038] and [1058]. The construction cuts were generally 1.10m wide and 0.65m deep, with brick side-walls sited c. 0.50m apart.

- 5.13.4.4 The culvert walls comprised unfrogged red bricks (280mm x 120mm x 120mm) bonded with lime mortar and these stood to a height of c. 0.30m with the stone slab capping upon them. The capping slabs (up to 1260mm x 500mm x 90mm) were recorded at a maximum height of c. 27.85m OD. The construction cut backfills, [59], [1000], [1047], [1050] and [1055], were firm clayey silt, silty clay or sandy silt deposits, within which were frequent brick and sandstone fragments.
- 5.13.4.5 In Trench 10 Extension 3, a wall [1005], constructed from sandstone blocks (up to 300mm x 180mm x 30mm) bonded with lime mortar, was recorded adjacent to southern culvert wall [1002]. This structure may represent an addition to the culvert during its usage. A feature, [63], which partially truncated the same culvert in Trench 10 may also relate to an episode of maintenance/modification of the culvert.
- 5.13.4.6 The differences in construction between the north-south orientated culverts and the east-west orientated culvert probably implies separate phases of build, although the sequence of construction could not be ascertained from the stratigraphic evidence. It is unclear how long these culverts remained in use. The presence of humic clay, sand and silt fills, [1004], [1037] and [1057], within the east-west aligned culvert in Trench 10 indicates that the drainage system gradually silted-up over time.

5.13.5 19th Century Railway Viaduct Construction

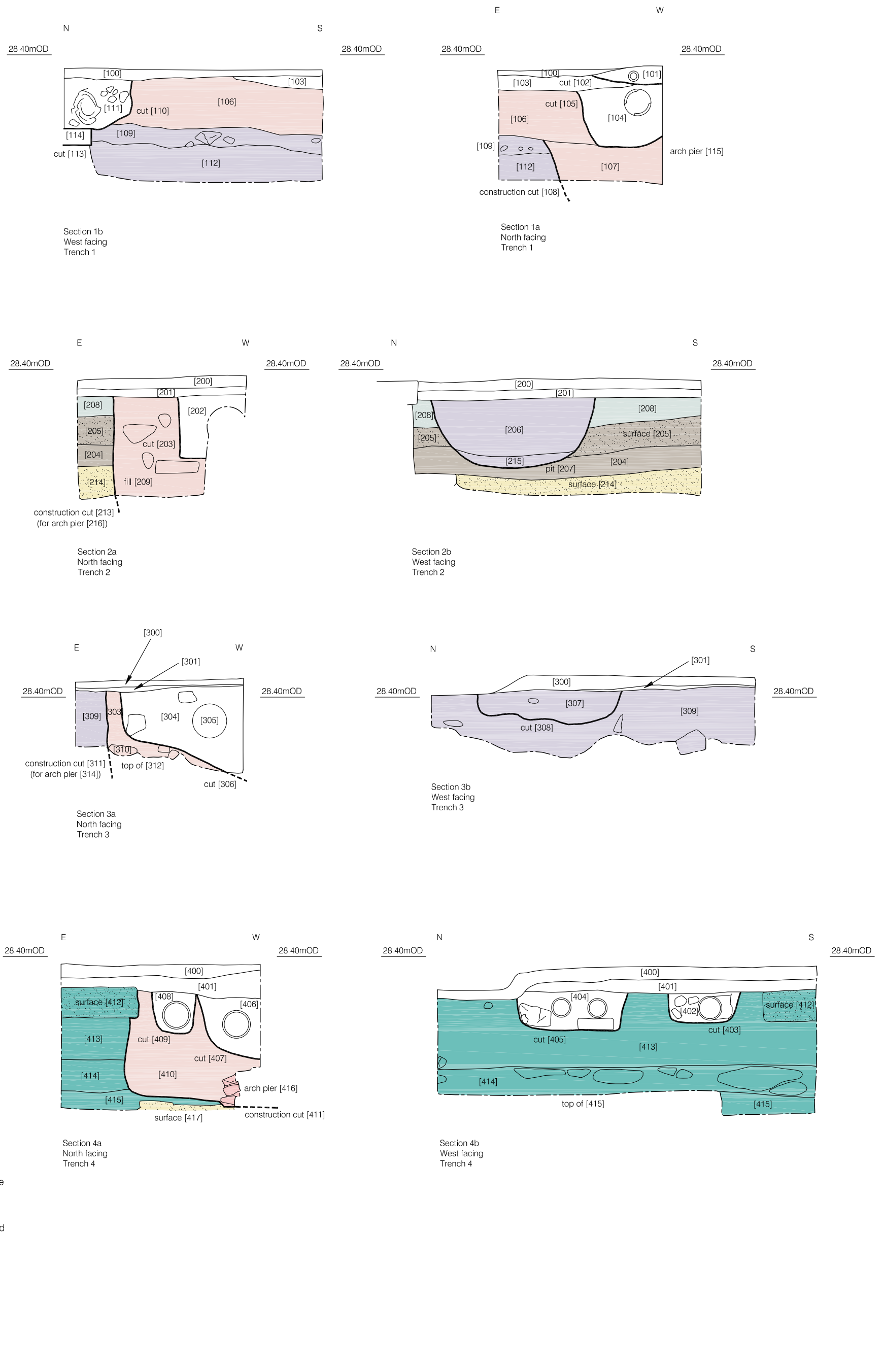
- 5.13.5.1 A sandy silt levelling layer, [99], recorded in Trench 10 evidently post-dated the previously described culverts. Up to 0.13m thick, it was recorded at a maximum height of 28.36m OD. Another, more substantial, dump/levelling layer, [87], recorded elsewhere in Trench 10 comprised loose brick and sandstone masonry rubble. It was up to c. 0.75m thick and was recorded at a maximum height of 28.37m OD. These deposits probably relate to demolition and ground-raising/levelling episodes undertaken in advance of the construction of the railway viaduct.
- 5.13.5.2 Archaeological evidence (Figures 17-23 - sections) of the structural arches of the viaduct above the site comprised:
- Trench 1: construction cut [108], brick arch pier [115], backfill [107];
 - Trench 2: construction cut [213], brick arch pier [216], backfill [209];
 - Trench 3: construction cut [311], brick arch pier [314], backfills [310], [312] and [313];
 - Trench 4: construction cut [411], brick arch pier [416], backfill [410];
 - Trench 5: construction cut [507]; brick arch pier [514]; backfill [506];
 - Trench 6: construction cut [618], brick arch pier [619], backfill [617];
 - Trench 7: construction cut [705], brick arch pier [709], backfill [708];
 - Trench 9: sandstone arch pier [902];
 - Trench 10: construction cut [1013], concrete slab [1006], brick arch pier [1034], backfills [97] and [98]; construction cut [1060], backfill [1059];
 - Trench 11: construction cut [2096]; backfill [2025].
- 5.13.5.3 The construction cut backfills generally comprised firm clayey silt or silty clay. Substantial quantities of 19th century pottery and ceramic building material were also noted within the fills.
- 5.13.5.4 In Trench 7, a probably circular pit, [707], with a silty clay fill, [706], containing brick fragments, truncated the backfill of the arch pier.

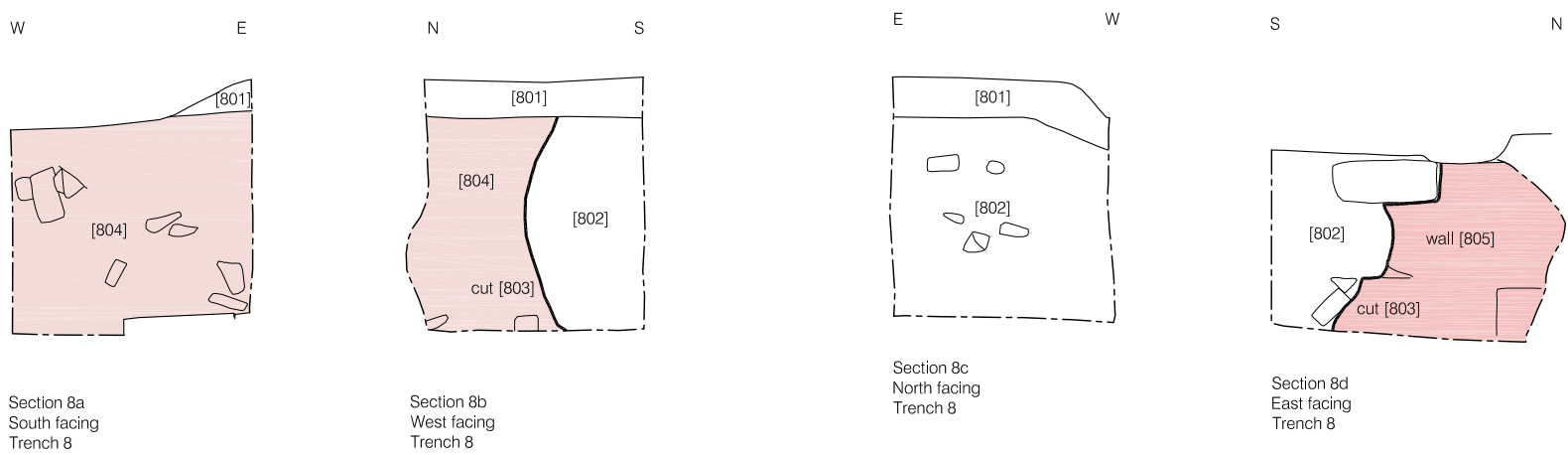
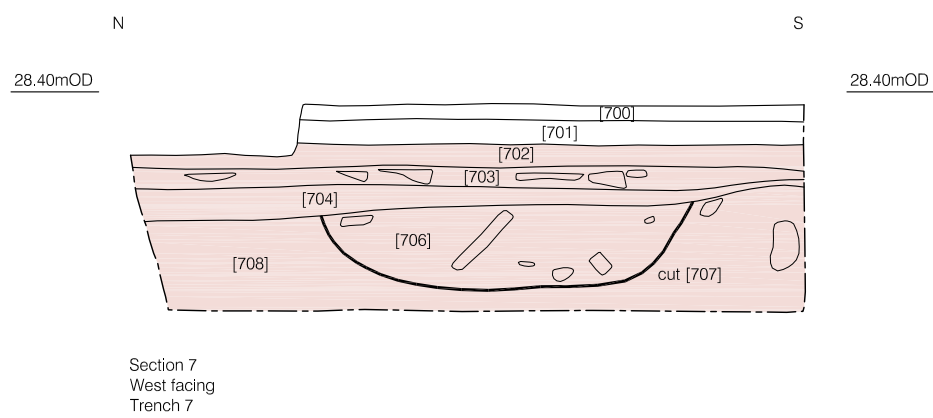
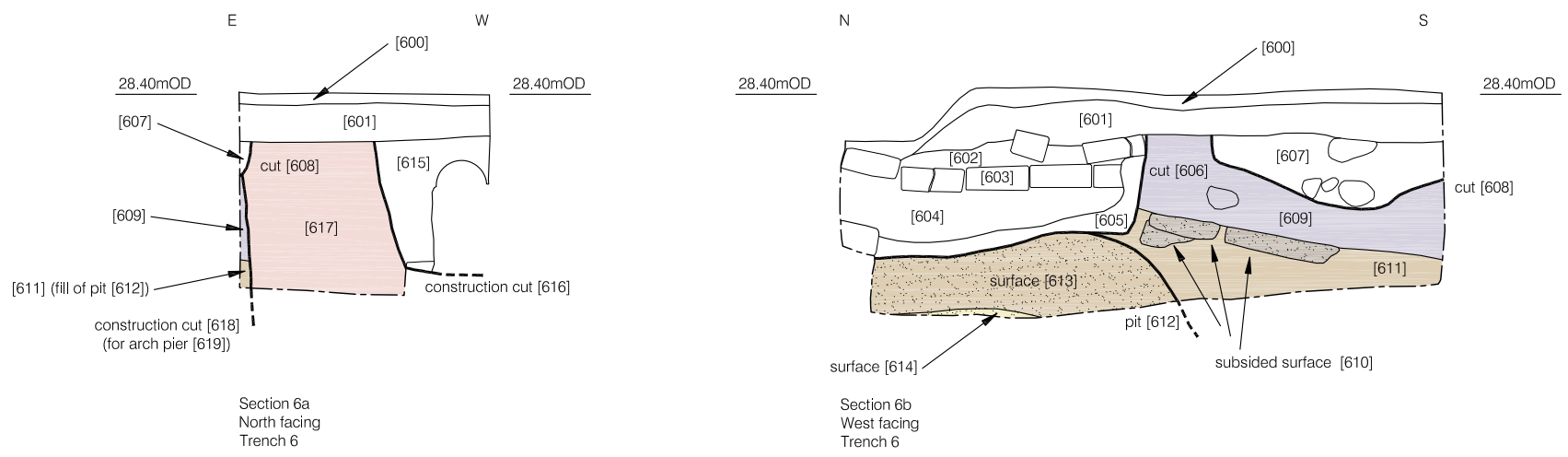
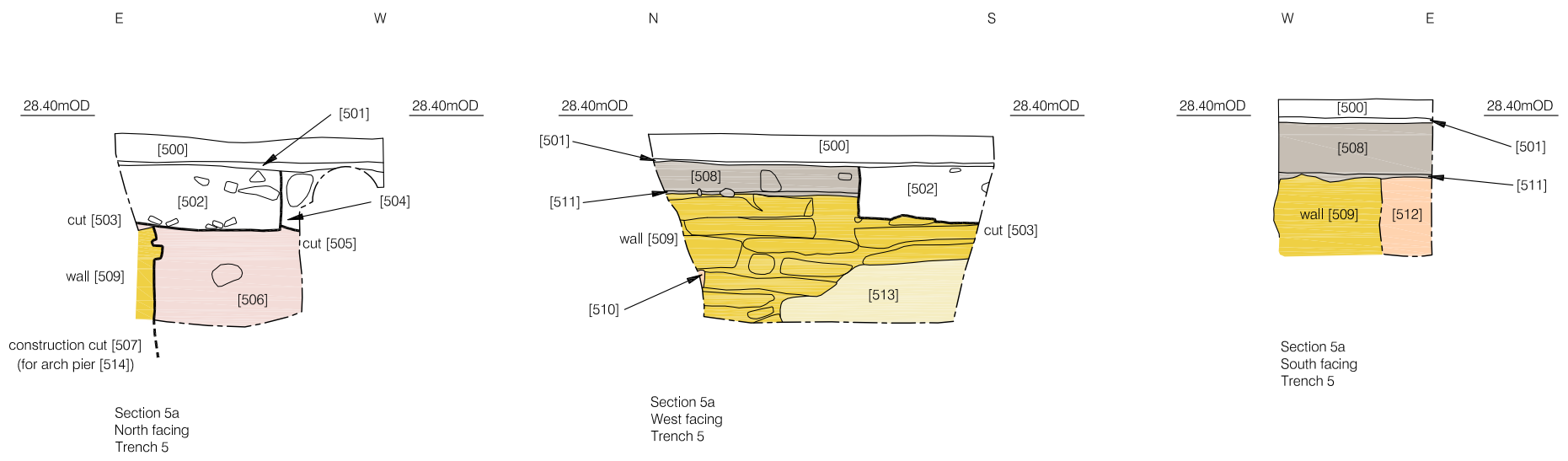
- 5.13.5.5 A number of layers recorded in Trenches 1, 7 and 9 have been interpreted as representing an additional episode of ground raising/levelling following the construction of the railway viaduct. In Trench 1, the backfilled construction cut of the arch pier was overlain by a dump/levelling layer, [106], up to 0.34m thick and recorded at a maximum height of 28.26m OD. In Trench 7, the backfill of the construction cut of the arch pier and the aforementioned pit post-dating construction were overlain by rubble layers, [702], [703] and [704], recorded at a maximum height of 28.33m OD. In Trench 9, the backfilled construction cut was overlain by a loose ashy layer, [901], up to c. 0.85m thick.
- 5.13.5.6 A dressed sandstone lintel, [210], was recorded above the arch pier construction cut backfill in Trench 2.

5.14 Phase 5: Modern

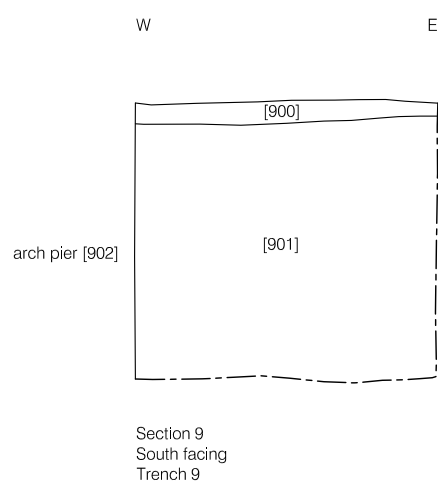
- 5.14.1 Service trenches and inspection chambers of likely 20th century date, many of which were still 'live', were recorded across the extent of the site (Figures 15-23 - sections).
- 5.14.2 Phase 5 inspection chambers comprised:
- Trench 1: construction cut [113], chamber [114];
 - Trench 3: construction cut [306], chamber [305], backfill [304];
 - Trench 6: construction cut [606], base [604], chamber [603], backfills [602] and [605].
- 5.14.3 Phase 5 service trenches comprised:
- Trench 1: service trenches [102], [105] and [110], backfills [101], [103], [104] and [111];
 - Trench 2: service trenches [203] and [212], backfills [202] and [211];
 - Trench 3: service trench [303], backfill [302];
 - Trench 4: service trenches [403], [405], [407] and [409]; backfills [402], [404], [406] and [408];
 - Trench 5: service trenches [503] and [505], backfills [502] and [504];
 - Trench 6: service trenches [608] and [616], backfills [607] and [615];
 - Trench 7: service trench [711], backfill [710];
 - Trench 8: service trench [803], backfill [802];
 - Trench 10: service trenches [49], [1046] and [1084], backfills [35], [1045] and [1083];
 - Trench 11: service trenches (and related features) [2095], [2103], [2105] and [2109]; backfills [2094], [2102], [2104] and [2108].

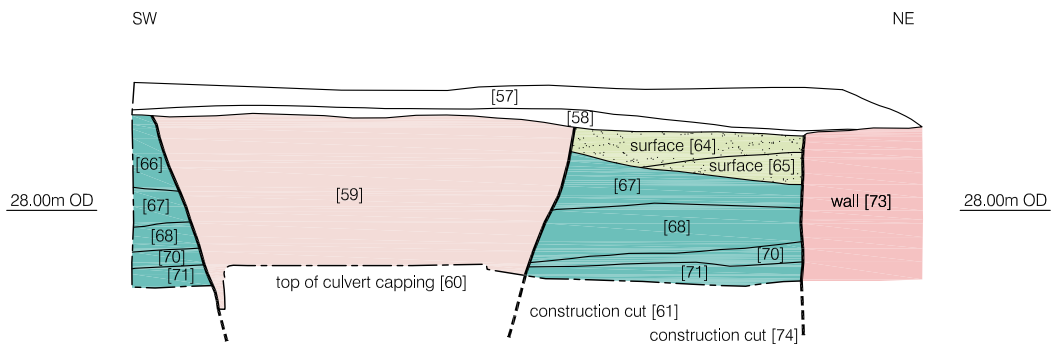
- 5.14.4 The service trenches were generally sealed by dump/levelling layers representative of episodes of ground levelling/raising during the 20th century. Phase 5 dump/levelling layers were [2], [5], [58], [77], [89], [96], [201], [301], [401], [501], [601], [701], [801], [1041], [2001], [2092], [2100] and [2110] encountered in Trenches 2, 3, 4, 5, 6, 7, 8, 10 and 11. These deposits were between 50mm and 0.60m thick and, as a group, were recorded at a maximum height of c. 28.50m OD.
- 5.14.5 External to the main site in Trenches 12 and 13, the archaeological watching brief recorded no remains pre-dating the modern era. Thus all 'overburden' deposits at these locations were assigned the general context number [2097].
- 5.14.6 Post-dating the aforementioned dump/levelling material were various layers forming the existing ground surface at the site: [1], [4], [13], [57], [76], [95], [100], [200], [300], [400], [500], [600], [700], [800], [900], [1042], [2000] and [2001]. Most comprised the dolomite foundation layer or sand bedding layer for the new concrete floor slab, the remainder being the existing concrete floor slab. Other surface treatments recorded in Trench 11 were edging stones [2002], cobbles [2004] and tarmac [2005]. All these surfaces, present in Trenches 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11, were generally no more than 0.15m thick and, as a group, were recorded at a maximum height of c. 28.75m OD. With the exception of a very recent feature, [1053], in Trench 10 Extension 1 and a very recent service trench, [2107], in Trench 11, the surfaces represented both the latest archaeological context at each location and the existing ground level at the time of the investigations.



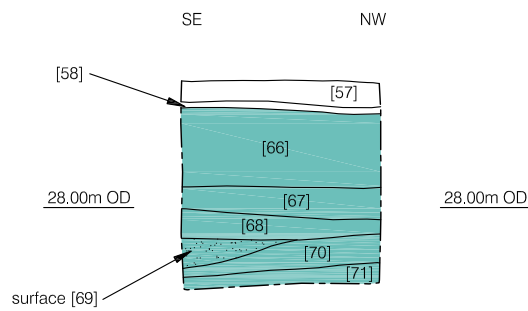


- Phase 2a
- Phase 2a structure
- Phase 2b
- Phase 2c
- Phase 2d
- Phase 2e
- Phase 3
- Phase 4
- Phase 4 structure
- Surface

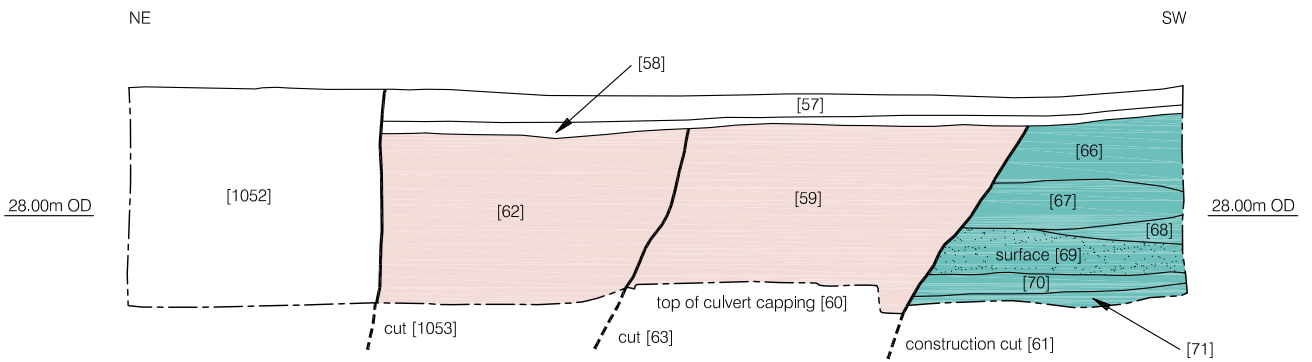




Section 24
South East facing
Trench 10
Extension 1



Section 25
North East facing
Trench 10
Extension 1



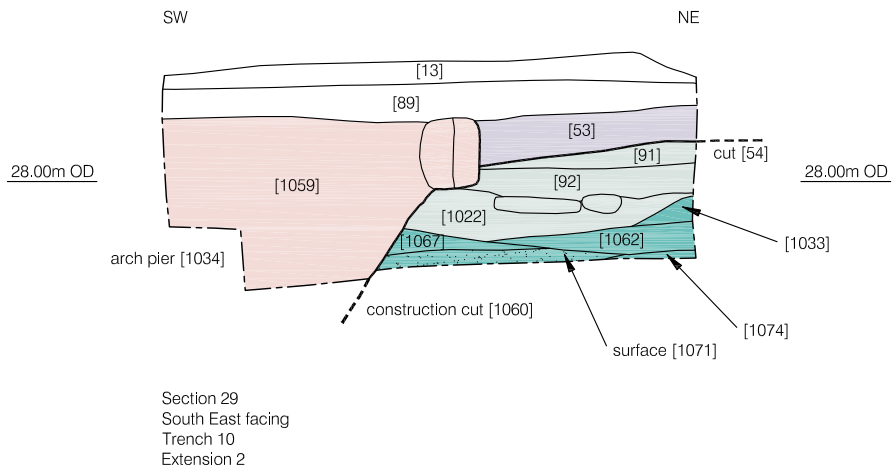
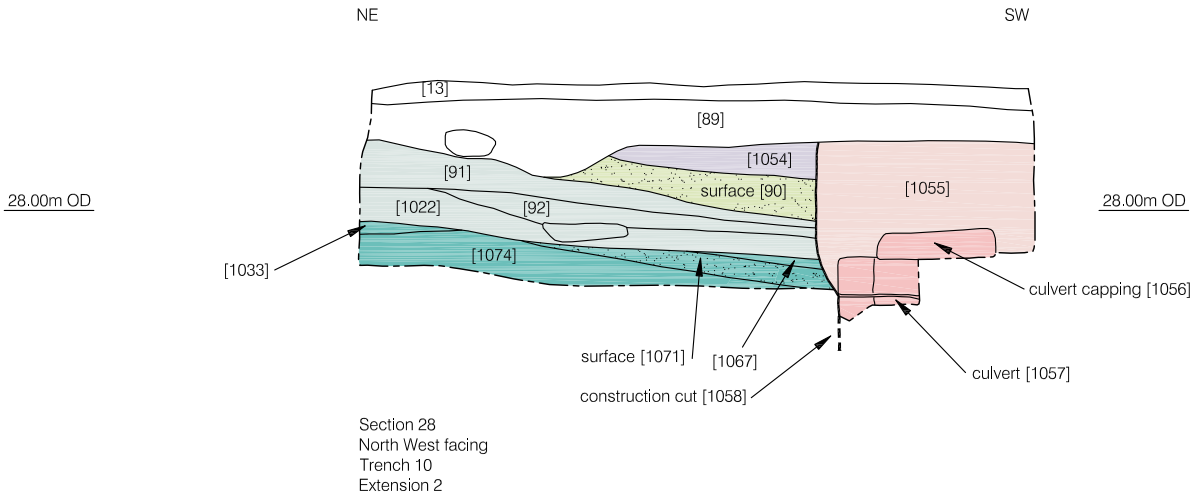
Section 26
North West facing
Trench 10
Extension 1

- Phase 2b, 2c or 2d
- Phase 2f
- Phase 4
- Phase 4 structure
- Surface

0 1m

© Pre-Construct Archaeology Ltd 2010

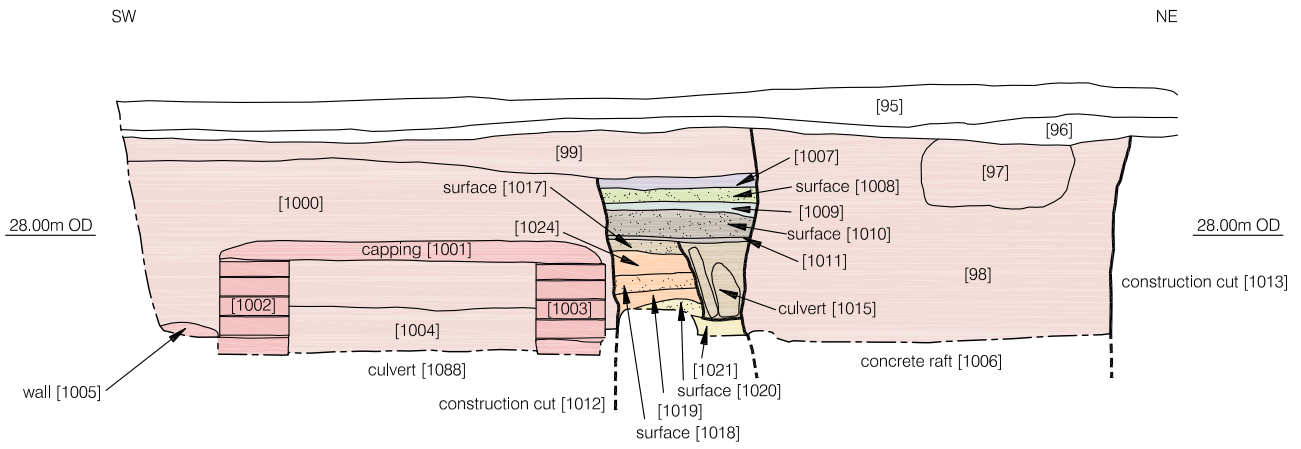
Figure 17
Trench 10 Extension 1 Sections
1:25 at A4



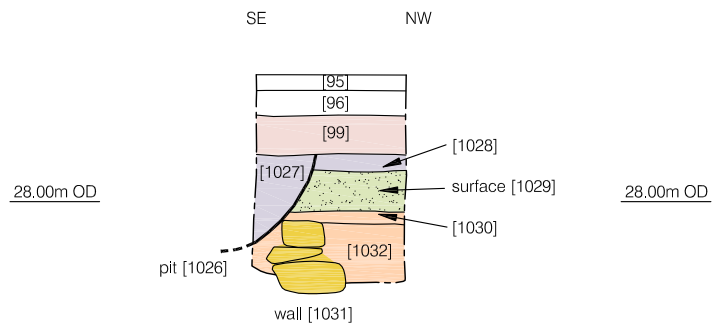
- Phase 2b, 2c or 2d
- Phase 2e
- Phase 2f
- Phase 3
- Phase 4
- Phase 4 structure
- Surface

0 1m
© Pre-Construct Archaeology Ltd 2010

Figure 18
Trench 10 Extension 2 Sections
1:25 at A4



Section 30
 South East facing
 Trench 10
 Ext. 3



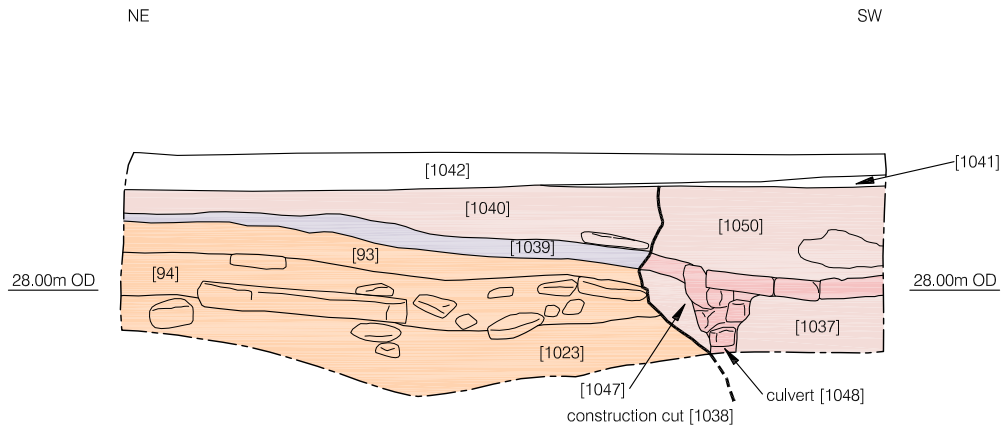
Section 31
 North East facing
 Trench 10
 Ext. 3

- Phase 2a
- Phase 2a structure
- Phase 2b
- Phase 2c
- Phase 2d
- Phase 2e
- Phase 2f
- Phase 3
- Phase 4
- Phase 4 structure
- Surface



© Pre-Construct Archaeology Ltd 2010

Figure 19
 Trench 10 Extension 3 Sections
 1:25 at A4



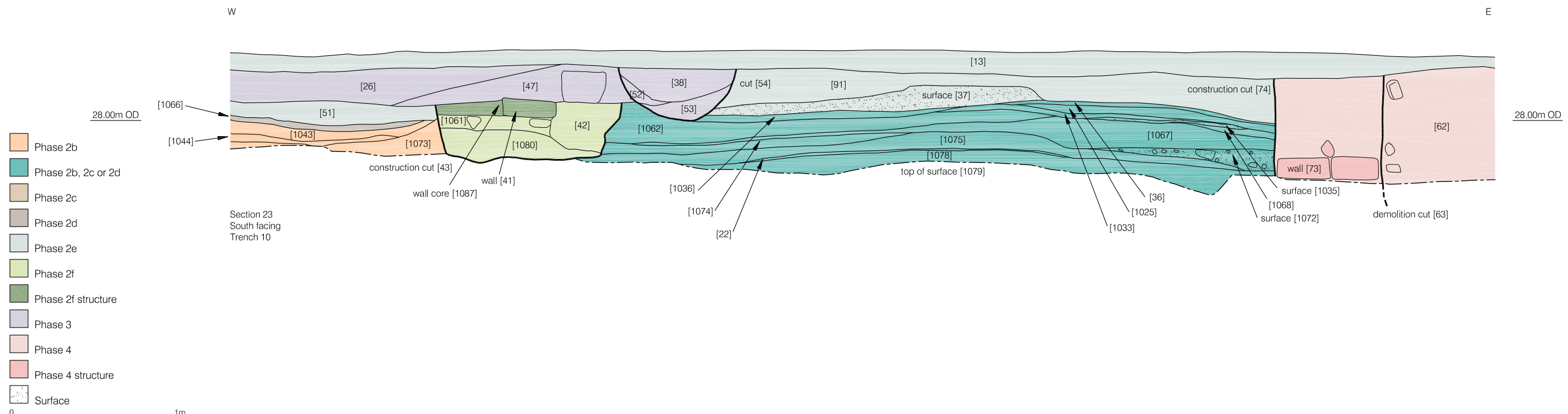
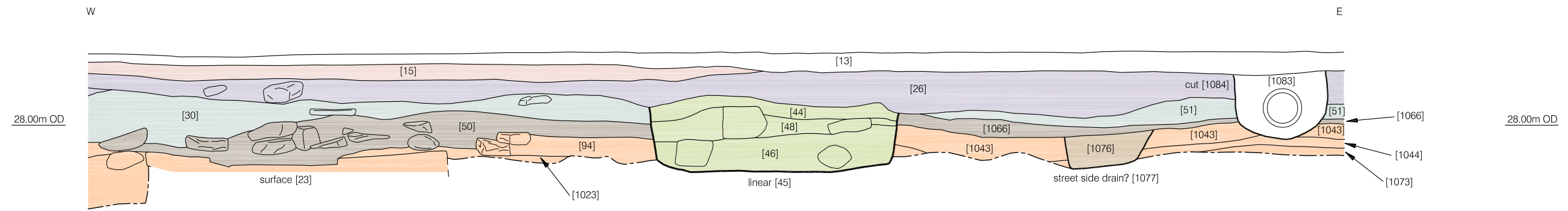
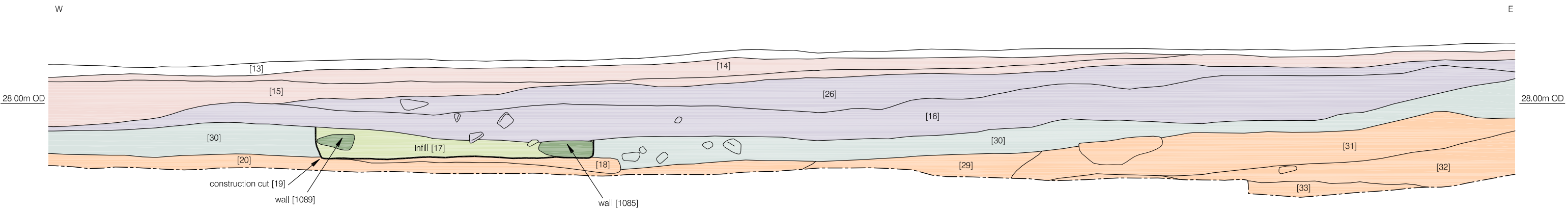
North West facing section
Trench 10
Ext. 4

- Phase 2b
- Phase 3
- Phase 4
- Phase 4 structure



© Pre-Construct Archaeology Ltd 2010

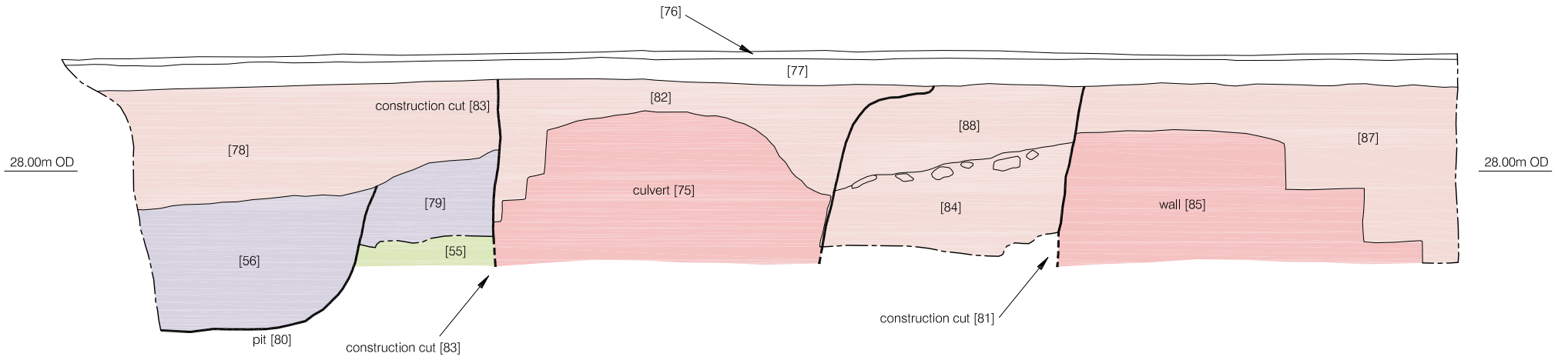
Figure 20
Trench 10 Extension 4 Section
1:25 at A4



- Phase 2b
- Phase 2b, 2c or 2d
- Phase 2c
- Phase 2d
- Phase 2e
- Phase 2f
- Phase 2f structure
- Phase 3
- Phase 4
- Phase 4 structure
- Surface



Figure 21
Trench 10 Section
1:25 at A4



Section 22
North facing
Trench 10 East

- Phase 2f
- Phase 3
- Phase 4
- Phase 4 structure



© Pre-Construct Archaeology Ltd 2010

Figure 22
Trench 10 East Section
1:25 at A4

PART B: DATA ASSESSMENT

6. STRATIGRAPHIC DATA

6.1 Paper Records

6.1.1 The paper element of the Site Archive is as follows:

<i>Item</i>	<i>No.</i>	<i>Sheets</i>
Context register	1	10
Context sheets	423	423
Section register	1	1
Section drawings	38	38
Plans	104	108
Bulk sample register	1	1
Bulk sample sheets	28	28
Small finds register	1	1

Table 6.1. Contents of the paper archive

6.2 Photographic Records

6.2.1 The photographic element of the Site Archive is as follows:

<i>Item</i>	<i>No.</i>	<i>Sheets</i>
Colour slide register	3	6
Colour slides	112	8
Monochrome print registers	3	4
Monochrome prints	66	10
Monochrome negatives	66	4
Digital photograph register	1	4
Digital photographs	226	On 1 CD

Table 6.2. Contents of the photographic archive

6.3 Site Archive

6.3.1 The complete Site Archive, including the paper and photographic records, is currently housed at the Northern Office of PCA.

6.3.2 The Site Archive will eventually be deposited with Tyne and Wear Museums and Archives, Arbeia, South Shields for permanent storage and the detailed requirements of the repository will be met prior to deposition.

7. ROMAN POTTERY (*Alex Croom*)

7.1 Introduction

7.1.1 The site produced 595 sherds of Roman pottery, weighing 17.017kg. The majority (14.799kg or 87%) of the pottery was stratified.

7.2 Summary of the Pottery Records in the Site Archive

7.2.1 The assemblage consists largely of sherds from coarse ware cooking pots, bowls/dishes, and storage jars, and a number of fine ware beakers. There were 40 sherds of stratified amphorae, six sherds of mortaria and 76 sherds of samian. A summary is set out in Table 7.1.

7.2.2 The stratified pottery dates to the first half of the 3rd century, with only a couple of sherds that belong to the middle of that century. The unstratified material produced two sherds dating to the late 3rd century or later.

7.2.3 The following tasks have been completed:

1. Spot-dating: a context by context paper record of all pottery recovered, listing fabrics (as quantified in Table 7.1) and forms present and giving the date-range of each context.
2. Comments on the condition of the pottery such as worn and abraded sherds are also identified.
3. General comments on how dating was arrived at and a note of the presence of any post-Roman material.
4. The identification of pottery of intrinsic interest or complete vessels that may be worth illustrating.
5. Transfer of spot-dating information onto a spreadsheet to allow manipulation of the data in the advent of any future research programme.

7.3 The Pottery

7.3.1 *Samian*

7.3.1.1 The assemblage produced 76 sherds of samian, of which 49 came from stratified layers. This is made up of nine decorated sherds and six mortaria sherds, with the remainder plain wares.

7.3.1.2 There were four stamps. Two of these were complete, while the other two were very fragmentary and therefore illegible.

7.3.2 *Mortaria*

7.3.2.1 The stratified material produced sherds from five mortaria vessels, including an unusual thin-walled vessel of interest. More vessels were represented amongst the unstratified material, but other than a small scrap of rim, all, stratified and unstratified, were base or body sherds.

7.3.3 Amphorae

7.3.3.1 As expected, most of the amphora sherds came from the olive oil-carrying Dressel 20, the most common type of amphora found on Romano-British sites. They included a complete rim, and three other rim sherds. There were nine stratified sherds from wine-carrying amphorae, including one from a Campanian 'black sand' amphora of the mid-3rd century or later (context [414]).

7.3.4 Fine and Coarse Wares

7.3.4.1 There was a wide-ranging selection of fine wares, including a sherd of 2nd century rough-cast beaker, Central Gaulish and Trier black-slipped wares, poppy-head beakers and Nene Valley parchment ware. The most common ware was Nene Valley colour-coated ware, including sherds from a flagon.

7.3.4.2 The coarse wares were dominated by BB2 and its allied fabrics (SENK). Sherds of Horningsea storage jars were also common, but other wares such as BB1, Nene Valley grey ware and locally produced grey wares were represented by only a few sherds.

7.4 Discussion

7.4.1 The assemblage comes from features immediately outside the fort in Newcastle and is an important addition to the study of pottery from the *vicus*. The value is increased further by the fact that although the majority of the contexts produced only small numbers of sherds, taken together the material from is a closely dated group of the first half of the 3rd century. The few stratified sherds that can be dated to the mid-3rd century came from Trenches 4 and 5. Later material is only represented by two sherds of possibly late-3rd century pottery recovered from post-Roman layers (context [56] in Trench 10) and unstratified.

Context	Comments	Spot date	Phase
16	Medieval	Medieval	3a
21	Unknown reduced ware	-	2e
30	BB2 allied	C3	2e
36	BB2 and allied fabric rims, NV body sherd	C3	2b/c/d
39	Unusually large BB2 cooking pot: 50% BB2 rounded rimmed bowl. Draw x2	C3	2e
41	Samian Dr 37	C2	2f
42	BB2 c-p bsh	prob C3	2f
44	Unknown reduced ware	C2+	2f
46	P47 amphora	C2+	2f
47	NV bsh. Draw x1	C3	3a
51	Samian mortarium Dr 45?	Late C2	2e
91	BB2 rounded rimmed b/d	C3	2e
92	Unknown grey wares	C2+	2e
93	BB2 and allied fabric shh	C3	2b
109	BB2 allied fabric, plus 1 sherd of medieval	C3?	3b
112	BB2, but also 3 sherds of medieval	C3?	3a
205	Samian Dr 18/31	C2	2d
214	Flagon	C2+	2a
413	NV b sh	C3	2b/c/d
414	Black sand amphora	c. 250+	2b/c/d
415	dr 20 amphora	C2+	2b/c/d
508	Type 55 amphora, BB2, BB1 c-p with obtuse angle lattice. Draw x1	c. 225+	2d
511	NV funnel-necked indented scale beaker. Draw x1	c. 250+	2d
512	Unknown reduced ware	C2+	2b
611	Samian Dr 37	C2	2c
1009	BB2 c-p sh	prob C3	2e
1023	BB2 rounded rimmed b/d and c-p. Draw x1	C3	2b

1030	Unknown grey ware	C2+	2b
1033	NV base	C3	2b/c/d
1036	BB2 rounded rimmed b/d	C3	2e
1043	BB2 allied fabric b sh	C3	2b
1051	Unknown reduced ware	C2+	2a
1066	BB2 and allied fabrics	C3	2b
1067	Scrap	-	2b/c/d
1069	BB2 allied fabric G151 type rim	C3	2f
1074	BB2 c-p bsh	prob C3	2b/c/d
1075	BB2	prob C3	2b/c/d
1078	BB2, NV	C3	2b/c/d
1080	NV grey ware	Late C2+	2f
1097	BB2 imitation rounded rimmed b/d (Norton?), NV base. Draw x1	C3	2b/c/d
2016	BB1 c-p, unknown grey ware	C2+	2f
2022	Samian Dr 18/31	C2	2f
2023	BB2 rounded rimmed b/d	C3	2e
2036	BB2, Horningsea	C3	2f
2038	BB2 rounded rimmed b/d, Horningsea storage jar	C3	2f
2042	NV beaker rim. Draw x1	C3	2f
2043	BB2 rounded rimmed b/d	C3	2e
2045	BB2 allied fabric b sh	C3	2e
2050	Samian Dr 27	C2	2d
2046	Samian Dr18/31	Had/Ant	2e
2063	Lots of BB2 and allied fabrics, NV, but also sherds of medieval. Draw x3	C3?	2b
2064	BB2 and allied fabrics, Horningsea storage jar, NV shh. Draw x4	C3	2e
2068	BB2 sh	prob C3	2a
2069	BB2 bsh	prob C3	2b
2070	BB2 and allied cooking pot, Horningsea storage jar	C3	2b
2072	BB2 bsh, samian stamp, complete dr 20 amphora rim	prob C3	2b
2073	BB2 c-p	prob C3	2b
2076	BB2 allied fabric G151 rim	C3	2b
2078	BB2?	prob C3	2b
2080	NV shh and BB2	C3	2b
2081	BB2. Draw x1	prob C3	2b
2085	BB2 and NV flagon handle, samian stamp	C3	2b
2086	BB2 allied fabric b sh	C3	2a
2089	Samian Dr 33	C2	2b

Key: b/d - bowl/dish; c-p - cooking pot; G151 - Gillam type 151; NV - Nene Valley; BB - black burnished ware; Had/Ant - Hadrianic/Antonine; C2 - 2nd century, etc.

Table 7.1. Spot-dating of contexts assigned a Roman and post-Roman date

8. CERAMIC AND STONE BUILDING MATERIAL (*Alex Croom and Jennifer Proctor*)

8.1 Introduction

8.1.1 The excavation produced 99 fragments of Roman ceramic building material, consisting of tile, *opus signinum* and burnt daub. The pieces in general were very small and in poor condition. Summaries are set out in Table 8.1 and Table 8.2.

8.2 Roman Tile

8.2.1 *Tegulae*

8.2.1.1 Seventeen definite *tegula* fragments were recovered, these mostly of flanges, with a handful of other possible *tegula* fragments. There were no examples of cut-away or undercut flanges. One end sherd had traces of a single finger arc decoration, and a dog's paw print. There were ranges of tile colours, from different firings.

8.2.2 *Imbrices*

8.2.2.1 Only three fragments of *imbrices* were recovered, one possibly from a ridge tile.

8.2.3 *Other*

8.2.3.1 Five fragments from possible *bessales* or similar non-roofing tiles were recovered, three from context [2063].

8.2.3.2 No box tiles were recovered.

8.2.3.3 Approximately ten unidentifiable scraps (identified as fragments without two surviving faces) were recovered.

8.3 *Opus Signinum*

8.3.1 Approximately 30 fragments of *opus signinum* were recovered, of at least three different qualities/types. One type, from context [2012], included frequent pebbles up to 30mm long.

8.3.2 One fragment, from context [2039], had an angled convex moulding on one face.

8.4 Daub and Fired Clay

8.4.1 Approximately 30 fragments of fired clay were recovered, most from Trench 11. At least 20 of the pieces were blackened and highly fired and are more typical of furnace lining rather than accidentally fired walling.

Context	Tegulae	Imbrices	Other	Modern	Phase
u/s	flange				
u/s	flange, roughly finished				
u/s	flange, soft orange fab				
u/s	flange, hard red fab				
u/s	flange, rounded				
10	end, pale orange/cream				3b
36	flange, narrow				2b/c/d
36	edge				2b/c/d
42			scrap		2f
42		bsh			2f
46	flange		scrap		2f
46	flange, hard				2f
46	bsh, pitted surface				2f
47			scrap		3a
56	flange, overfired		scrap		3b
56	teg? bsh, soft	edge	bess edge		3b
79	flange				3a
103				pantile	5
209	burnt			brick x 3	4
304				pantile x 4	5
310				white fired clay brick	4
414	flange, mid orange				2b/c/d
1019			scraps x 2		2b
1023		ridge? thick, soot on int			2b
2063	teg? b sh		bess edge x 2		2b
2063			bess edge, roughly made		2b
2063			scrap		2b
2067	end, blackened surface		scrap		3b
2070	b sh				2b
2070	end				2b
2078			scrap		2a
2080	flange				2b
2081			bess?		2b

Table 8.1. Summary of Roman tile

Context	Opus signinum	Daub	Mortar	Stone	Phase
u/s				burnt	
38				burnt	3b
39		daub			2e
91		lining			2e
204		lining			2d
206		lining			3b
304			scrap		5
415		lining, blackened			2b/c/d
1025		lining			2b/c/d
1043					2b
1097				burnt x 2	2b/c/d
2012	frags with large pebble inclusions				4
2036		daub x 2			2f
2039	frag				2f
2039	frag with angled convex moulding				2f
2045		lining			2e
2046	frags x 21, two different types	daub x 2			2e
2064		lining x 4			2e
2066		daub x 2			3b
2078		lining x 2			2a
2081		daub x 5			2b
2081		lining x 2			2b
2089		daub x 2			2b

Table 8.2. Summary of Roman ceramic (not tile) and other building material

9. SMALL FINDS (*Alex Croom*)

9.1 Introduction

9.1.1 The excavations produced 33 small finds in copper alloy, iron, lead, glass, pottery, fired clay, shale and stone.

9.2 Summary

9.2.1 Almost all of the finds came from Trenches 10 and 11, the drainage run excavations. There were 15 small finds from Trench 10, including a 4th century coin, and 15 small finds from Trench 11. Trench 2 produced only a single find. Twenty-five finds came from Roman layers, and eight from post-Roman or unstratified layers. There were two certain post-Roman finds, and another possible two.

9.3 The Finds

9.3.1 Copper Alloy

9.3.1.1 One Roman find was recovered, a complete penannular brooch with milled terminals. This is a long-lived type.

<i>Context</i>	<i>SF</i>	<i>Description</i>	<i>X-ray</i>	<i>Date</i>	<i>Phase</i>
27	2	Complete penannular brooch with milled terminals	XRK09/175	Roman	2b
u/s	100	Post-medieval dress-maker's pin	XRK09/175	Post-medieval	-

9.3.2 Coins

9.3.2.1 Three copper alloy coins were recovered, two corroded and one, a *sestertius*, in poor condition but identifiable.

<i>Context</i>	<i>SF</i>	<i>Description</i>	<i>X-ray</i>	<i>Date</i>	<i>Phase</i>
1067	11	Corroded copper alloy coin	XRK09/175	C4	2b/c/d
41	9	Copper alloy coin, some detail	XRK09/175	C1-C2	2f
2022	103	Corroded copper alloy coin	XRK09/175	C1-C2	2f

9.3.3 Iron

9.3.3.1 Fourteen Roman artefacts were recovered, although, as usual, the majority were fragments of nails. There was a narrow iron bar of unknown use (SF 5), and a number of large pieces, possibly of sheeting (SF 114), but with no distinguishing features. The most interesting object was an incomplete spearhead recovered from a floor surface (SF 113).

<i>Context</i>	<i>SF</i>	<i>Description</i>	<i>X-ray</i>	<i>Date</i>	<i>Phase</i>
204	1	Nail shank	XRK09/175	Roman	2d
38	3	Probable nail shank	XRK09/175	Roman	3b
38	3	Large nail with part of head c. 80mm long	XRK09/173	Roman	3b
38	5	Rectangular cross-sectioned strip. Use unknown. So little metal survives that it does not show on X-ray. L: 118mm W: 15mm B: 4mm	XRK09/175	Roman	3b
2007	101	Thin rod, possibly nail shank, with flecks of lead or copper alloy	XRK09/175	Roman	3b
2064	107	Probable nail shank	XRK09/175	Roman	2e
2063	108	Nail shank	XRK09/175	Roman	2b
2072	109	Probable nail shank	XRK09/175	Roman	2b
2081	111	Two fragments of flat iron bar, one tapering. So little metal survives that it does not show on X-ray	XRK09/175	Roman	2b

2082	113	Socketed implement, which appears to taper to edges, so likely to be a spearhead. Needs further cleaning	XRK09/173	Roman	2a
2078	114	Five large fragments of ?sheet. No distinguishing features	XRK09/174	Roman	2a
2078	115	Sheet	XRK09/175	Roman	2a
2072	118	Folded iron bar. Not enough survives to suggest use	XRK09/175	Roman	2b
2072	119	L-shaped cut nail, probably nineteenth century	XRK09/175	Post-medieval	2b
2076	120	Nail with head	XRK09/173	Roman	2b
2067	121	Corroded iron object	N/A	Roman	3b

9.3.4 Lead

9.3.4.1 A folded lead sheet (SF 6) and a plug from a pottery vessel (SF 12) were the only lead object recovered.

Context	SF	Description	X-ray	Date	Phase
1009	6	Folded lead sheet	XRK09/173	Roman	2e
1078	12	Plug from a pottery vessel	XRK09/175	Roman	2b/c/d

9.3.5 Glass

9.3.5.1 Sherds from two vessels and a yellow bead were recovered. The bead, a small square-sectioned cylinder, is 3rd or 4th century in date, and is of a type more usually found in blue or green. Unfortunately it was unstratified.

Context	SF	Description	Date	Phase
1051	13	Four joining rim shh from mould-blown bottle in blue/green glass	C1-e.C3	2a
39	14	Plug from pottery vessel	C3-C4	2e
u/s	105	Small cylindrical transparent yellow bead. Unusual colour	?Roman	-
2097	112	Base of vessel blue-green glass, spiral decoration, metal full of bubbles	?Roman	5

9.3.6 Pottery

9.3.6.1 A disc from a re-used samian sherd and a pierced disc from a re-used BB2 sherd were recovered. These are common Roman finds.

Context	SF	Description	Date	Phase
1022	7	Pierced disc BB2 ?b/d base sh	Roman	2e
1022	8	CG samian disc	Roman	2e

9.3.7 Fired Clay

9.3.7.1 A single triangular 'loom-weight' or 'oven brick' of Iron Age type (110) was recovered. Although this is a common form in southern (and especially south-eastern) England, this may well be the first example to have been found further north than Lincolnshire²⁷ and is therefore an item of great interest. Analysis of the clay is recommended to establish if it is made from a locally available material and therefore produced in the region, or if it is an artefact that has been brought up to Newcastle from southern England.

Context	SF	Description	Date	Phase
42	110	Triangular loom-weight of Iron Age type	Roman	2f

²⁷ Barford 1996, 330.

9.3.8 Shale

9.3.8.1 A complete shale bracelet (in four pieces) of 3rd or 4th century date was recovered.

Context	SF	Description	Date	Phase
51	10	Complete (in 4 pieces) shale bracelet with D-cross section	Roman	2e

9.3.9 Querns

9.3.9.1 Three quern fragments were recovered, one of which was only a small fragment with pronounced 'harp grooving'. There was also approximately one quarter of a lower stone of sandstone conglomerate, which is a type of stone not commonly used for querns in the forts of the Lower Tyne Valley, and another untypical piece of an upper stone imitating a lava quern.

Context	SF	Description	Date	Phase
2016	102	Small fragment of fine sandstone, burnt. Not enough survives for identification as upper or lower stone. Harp grooving	Roman	2f
2038	104	Almost half of upper stone with wide hopper and socket hole. Coarse grey sandstone. Harp grooving	Roman	2f
2063	106	Almost quarter of a lower stone with part of socket surviving. Sandstone conglomerate with pebble inclusions up to 25mm. Pecked working surface	Roman	2b

9.4 Discussion

9.4.1 The most interesting find from the site is the fired clay triangular object, since it is the first example of the type to have been found in the region. Whether loom weight or oven brick, it had a domestic use, as did the three querns and the lead plug from a mended vessel. Other artefacts relate to personal belongings; a cloak brooch, a woman's bracelet and a bead. Most of the artefacts are those to be expected in a civilian setting. The one potentially unusual object is the spearhead, which is likely to be a piece of military equipment, although a spear used for hunting cannot be ruled out.

10. ARCHAEOMETALLURGICAL MATERIAL *(Dr. Roderick Mackenzie)*

10.1 Introduction

10.1.1 A basic identification of 'production residues' from the site has been carried out, and individual pieces have been assessed to determine whether further analysis is required. The dating evidence provided has been used to assign dates to the assemblage where possible. It should be noted that at this stage, no microscopic or chemical analysis has been carried out.

10.2 Summary

10.2.1 The assemblage contains only limited evidence of metal production, and what is there is largely undiagnostic in nature. The fragments of burnt clay 'hearth lining' are likely to be domestic in origin.

10.2.2 A description of the material contained within the assemblage is given below in Table 10.1

10.3 Results and Interpretation

10.3.1 Most of the metalliferous slag contained within the assemblage is undiagnostic in nature, which is not uncommon. The difficulties of determining the process origin of slags from the Iron Age to medieval period have been discussed elsewhere.²⁸ However, there is a small amount of material to suggest that iron smithing had possibly been carried out either at, or in the vicinity of Trench 10.

10.3.2 The pieces of burnt clay present in the assemblage do not appear to have been fired to the high temperatures normally associated with metal, glass or pottery production; this, together with the small amount of 'production-type' residues present in the assemblage, suggests that the burnt clay probably relates to domestic hearths or ovens.

10.3.3 Some fragments of burnt clay are of interest as they appear to have finger marks where the clay was originally pressed into place (see Table 10.1, contexts [1031] and [2064]).

<i>Context</i>	<i>Trench</i>	<i>Proposed date</i>	<i>No. of frags.</i>	<i>Weight (g)</i>	<i>Description</i>	<i>Phase</i>
38	10	3rd C.	5	1380	Highly vesicular, low density slag containing fragments of charcoal. Largest piece (795g) has concave upper surface with v-shaped notch. Possibly iron smithing slag.	3b
39	10	3rd C.	See Sample 8	<10	Small amount of material from bulk Sample 8, predominantly fragments of magnetic natural stone (<5mm ³). Less than 5 fragments of flake hammerscale or spheroidal hammerslag are present.	2e
102	1	Modern	1	32	Heavily weathered fragment of undiagnostic slag	5

²⁸ McDonnell 2001, 163 and Bachmann 1982, 31.

112	1	Medieval	1	22	Fragment of possible compacted and burnt floor material	3a
508	5	c. 225	3	35	Small fragments of low density slag containing fragments of charcoal. Undiagnostic	2d
511	5	c. 250	2	42	One fragment of undiagnostic slag, other fragment is possible compacted floor material.	5
1031	10	2nd or 3rd C.	2	233	Fragments of clay with finger imprint. Possibly roughly applied wall bonding or hearth lining.	2a
1033	10	3rd C.	See Sample 10	<5	Small amount of material from bulk Sample 10, consisting of one blob spheroidal hammerslag, three fragments of undiagnostic slag, remaining fragments are burnt coal.	2b/c/d
1066	10	3rd C.	1	412	Burnt and compacted clay conglomerate with occasional charcoal inclusion. Possible lining from domestic hearth or oven.	2d
2023	11	3rd C.	5	764	Fragments of burnt clay, possibly hearth or oven lining; three pieces refit revealing flattened surface on one side.	2e
2063	11	3rd C.	1	33	Fragment of burnt clay/daub with charcoal inclusions	2b
2064	11	3rd C.	1	130	Fragment of possible metalliferous slag. Undiagnostic of process	2e
2064	11	3rd C.	2	99	Fragments of burnt clay, one has possible imprints of fingers in surface. Probably clay lining from domestic hearth or oven	2e
2070	11	3rd C.	1	203	Heavily weathered possible metalliferous slag. Undiagnostic of process	2b
2077	11	3rd C.	4	493	Fragments of very heavily weathered possible metalliferous slag. Undiagnostic of process	2a
2081	11	3rd C.	3	c. 8	Fragments of burnt coal	2b
2081	11	3rd C.	3	227	Fragments of burnt clay, possible lining from domestic hearth or oven	2b
2081	11	3rd C.	1	39	Fragment of undiagnostic burnt clay	2b
2081	11	3rd C.	3	167	Fragments of heavily weathered undiagnostic slag	2b

Table 10.1. 'Production process residues' assemblage

11. BIOLOGICAL REMAINS (Archaeological Services Durham University)

11.1 Introduction

11.1.1 Assessment of biological remains was carried out for ten bulk samples and hand-recovered bone and shell from the investigations.

11.1.2 The objective was to assess the quantity and preservation of plant macrofossil, faunal and shell remains and to establish their potential to provide information about the diet and agricultural practices of former inhabitants, and the palaeoenvironment of the site.

11.2 Plant Macrofossils

11.2.1 Method

11.2.1.1 The bulk samples were manually floated and sieved through a 500 μ m mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at $\times 60$ magnification for charred and waterlogged botanical remains using a Leica MZ7.5 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997).

11.3 Results

11.3.1 The results are presented in Table 11.1. Material suitable for radiocarbon dating was present in nine of the ten samples, with the exception of context [2050].

11.3.2 Charred plant remains were generally small in number. Contexts [2067] and [2073] produced relatively low quantities of wheat, oat, and indeterminate cereal grains, and grass seeds. A single barley grain was identified in context [39], an oat grain and cf. bread wheat grain was recorded in context [215], and charred heather twigs were noted in context [1067]. Several charred wheat grains were observed embedded within a fragment of clay in context [513], as described further below. Charred plant macrofossils were absent from contexts [1033], [2050] and [2081], although small fragments of oak stemwood charcoal came from context [1033], oak charcoal and charred heather twigs were noted in context [2050], and a fragment of ash (*Fraxinus excelsior*) charcoal (3g) occurred in the residue of context [2081].

11.3.3 Small amounts of charcoal in fact occurred in all ten contexts. Oak stemwood and ash charcoal were present in context [39], and a large fragment of ash charcoal was also recorded in context [215]. Like context [1033], context [1067] yielded oak stemwood charcoal and context [513] produced a small fragment of *Maloideae* (hawthorn, apple, whitebeams, etc.) charcoal and a fragment of cf. pine charcoal.

- 11.3.4 Medieval ditch fill [2067] was notable amongst the samples from the site in terms of the largest range and relative abundance of charred plant remains within it. The assemblage included grains of oat, wheat, barley and indeterminate cereals. Several charred hazelnut shell fragments and weed seeds of stinking chamomile, grass, and members of the cabbage family also occurred. Large numbers of uncharred plant remains, including nutshell, fruitstones, and weed seeds of arable, ruderal and wetland habitats were also noted in fill [2067]. Medieval pit fill [215] yielded uncharred (waterlogged) seeds and fruitstones of sloe, bramble, sheep's sorrel, henbane, common nettle, sedges, cinquefoils and goosefoot family, some in relatively high abundance, particularly bramble fruitstones.
- 11.3.5 Apart from plant macrofossils, the flots and residues of the ten samples comprised a variety of material, mostly pottery, ceramic building material, unburnt and calcined bone, clinker/cinder, charcoal, coal, and coal shale. Sherds of pottery were recovered from all contexts except [513] and [2050]. The presence of coal and coal shale in Roman deposits is likely to reflect the local geology rather than the use of coal as a fuel.
- 11.3.6 Very small quantities of magnetic material, *e.g.* hammerstone, were recorded in five contexts ([39], [1033], [1067], [2076] and [2081]). A small glass bead was recovered from context [39], the fill of a possible structured deposit. Context [513], the infill of an oven structure, largely comprised burnt clay with charred wheat grains embedded in one of the fragments, as previously described. Fish bone appeared in the residue of the sample of Roman deposit [2073] and small shards of glass occurred in Roman deposits [2073], [2076] and [2081].
- 11.3.7 Medieval ditch fill [2067] yielded fish bone, wood fragments and also a ferrous metal object, insects, uncharred vegetative material and frequent flecks of blue vivianite, an iron phosphate mineral which is associated with the decay of organic materials in sealed anaerobic conditions.

11.4 Discussion

- 11.4.1 The generally small plant macrofossil assemblages prevent detailed interpretations of Roman diet and crop husbandry practices at the site. While the occurrence of wheat grains indicates usage of this crop, the lack of diagnostic chaff prevents identification of the species. Oat grains were noted in two Roman contexts, [2073] and [2076], but these are possibly from the wild species, as oat was not widely cultivated before the medieval period in this region.²⁹ Again the absence of chaff prevented species identification. In general, the presence of charred plant remains, charcoal, clinker/cinder, ceramic building material, pottery and fragments of calcined and unburnt bone, broadly suggests that the sampled deposits accumulated as a result of the disposal of domestic waste.
- 11.4.2 The only charred macrofossils present in the putative oven material, context [513], were a few charred grains of wheat embedded in a fragment of clay. This may represent the lining of the oven structure, with the presence of grain suggesting it was used as a bread oven or grain-dryer. The poor condition of the grains prevented any further identification. Charcoal from the bulk sample included a fragment of *cf.* pine, which may have been imported, unless later intrusive material is included in the context.

²⁹ Huntley and Stallibrass 1995.

- 11.4.3 Surfaces [1033] and [1067] produced a very similar residue matrix comprising clinker, coal, semi-vitrified fuel waste, hammerscale, small fragments of calcined bone, sherds of pottery and charcoal, which generally appeared to be oak stemwood. These probably again derive largely from domestic activity, although the presence of a few fragments of hammerscale may indicate some small-scale industrial activity. Charred heather twigs were identified in context [1067], which may have been kindling, or remnants of bedding or roofing material.
- 11.4.4 Context [39] was proposed as the fill of a possible structured deposit, but the presence of fuel waste, a charred grain, small fragments of calcined and unburnt bone and pottery fragments, could also indicate an accumulation of domestic waste. The ferrous material recorded appears to be geological rather than industrial. It yielded only a single charred barley grain in the way of plant macrofossils. The poor condition of the grain and the absence of chaff prevent any further identification.
- 11.4.5 Wheat grains from medieval pit fill [215] and ditch fill [2067] have the characteristic rounded shape associated with *Triticum aestivo-compactum* (a variety of bread wheat), although the absence of diagnostic chaff prevents a definite identification. The presence of oats, bread wheat, barley and hazelnut shell, though in small numbers, is a typical assemblage of medieval sites in northern England.³⁰ However, the low numbers prevent further conclusions from being drawn about the agricultural and economic practices in the area.
- 11.4.6 An abundance of uncharred plant macrofossils was recovered from ditch fill [2067] including nutshells, fruitstones, an apple pip, bracken fronds and weed seeds of arable, ruderal, heathland and wetland habitats. This assemblage suggests that the fill accumulated through a combination of domestic dumping of waste and the remains of a diverse range of vegetation communities growing in or near the ditch. The presence of wood fragments, uncharred vegetative material and vivianite indicate waterlogged conditions were present during deposition, although the absence of obligate aquatic taxa suggests that the ditch did not hold standing water.
- 11.4.7 Uncharred bramble seeds in pit fill [215] included some fused together, which may suggest the inclusion of some cess material. Sloe fruitstones were also recorded within this deposit, which may reflect the use of wild foods in the diet. The presence of uncharred vegetative material indicates waterlogged conditions, with the occurrence of taxa of wet and disturbed ground such as sedges, henbane, goosefoot and common nettle, probably reflecting plants growing in and around the pit. The presence of small fragments of unburnt bone and a fragment of pottery are further evidence that the pit was used for domestic refuse.

11.5 Faunal Remains

11.5.1 Method

- 11.5.1.1 Notes were made of the species and element for the identifiable fragments present in each context. Fragments of cattle, sheep/goat and pig bones were listed as identifiable, if these encompassed a discrete diagnostic feature, or 'zone'. Unidentifiable fragments were only noted if all fragments from a context were unidentifiable. Notes of ageing data, butchery marks and the like were made where appropriate.

³⁰ Huntley and Stallibrass 1995.

11.5.2 Results and Discussion

- 11.5.2.1 Two boxes of animal bones were recovered. The stratigraphy spanned the Roman to modern periods, from the various trenches examined. However, the majority of the identifiable animal bones were found in medieval deposits. Preservation of the bones varied between trenches and chronological phases. The finds from Roman contexts were in average or poor condition. Some medieval deposits produced bone in excellent condition with the dark brown surface patina indicative of waterlogging. Other medieval contexts produced bones in mixed condition, suggesting damage caused by wetting and drying cycles at the top of the waterlogged horizon. The more recent contexts contained a mixture of weathered re-deposited bones with bones in fresh condition.
- 11.5.2.2 The excellent preservational conditions in some medieval deposits have produced evidence for the utilization of a range of species. Tables 11.2a and 11.2b detail the presence of species by context and phase. The Roman period deposits produced remains of sheep and pig, besides the more numerous cattle bones. The medieval period contexts produced the largest collection of bones. Cattle bones are, again, the most common but sheep and pig bones are well represented. Horse, deer, bird, fish and marine shells are also present, indicating that a variety of both food and non-food resources were available and utilised. The post-medieval and modern finds have more sheep than cattle bones with pig also present. A further find of deer was unfortunately unstratified.
- 11.5.2.3 The medieval material, being the bulk of the assemblage, will be considered in more detail. The cattle bones are all from adult animals with permanent teeth present and epiphyses fused, other than one late fusing example. The bones have been clearly chopped, presumably to access the marrow, and appear to derive from domestic consumption and waste disposal. However, one cattle frontal shows clearly that the horn core, presumably with the horn sheath attached, has been sawn off. The use of the saw at this period is indicative of craft working debris, not removal by the butcher. The sheep bones similarly appear to indicate adult animals, with most epiphyses fused, and carcass dismemberment by chopping with a cleaver. One scapula shows damage to the blade that may indicate suspension on a hook. One pig skull fragment is certainly from an adult and shows rotation of premolar 3. The aetiology of this condition is unclear but may indicate crowding of the tooth row. One horse mandible fragment has been clearly chopped. This is suggestive of the consumption of horse.
- 11.5.2.4 There is no evidence for the presence of dog, neither actual finds of dog bones nor finds of bones of other species gnawed by dogs. Use of horse meat for dog food is therefore unlikely. The sawn cattle horn core does indicate craft working in the vicinity, which might explain the presence of horse bones as raw material. The mandible may have been deliberately removed to utilise the skull elsewhere for its purported acoustic properties. Merrifield (1987) discusses a range of superstitious uses of horse skulls. Deer is represented by one piece of antler tine, which had been trimmed and both ends sawn. The size is commensurate with red rather than fallow deer. This sawn fragment complements the horn core, noted above, as evidence for craft working waste. The one bird bone is a goose-sized wing bone. The fish bones are all skull fragments from extremely large gadids. The shellfish present are oyster and winkle. Although this is a small group, it is clear that these medieval deposits have high potential for providing evidence of both domestic consumption patterns and craft working.

11.5.2.5 The bulk sampling strategy targeted Roman deposits, which produced small numbers of identifiable hand-recovered fragments. All but one of the sampled Roman contexts produced small unidentifiable bone fragments, though no hand-recovered finds of bone. This is invaluable evidence for the processing of animal bones on site in this period. Recent experimental work has shown that such tiny fragments scatter widely round the point of impact when breaking marrow bones.³¹ Such fragments can be further dispersed round an occupation site following ingestion by dogs and subsequent deposition in faeces. Further elements of cattle, pig and sheep were recovered and a domestic fowl size bird, which were not represented in the hand recovered finds. The fish bones indicate that a range of smaller species and other body parts were consumed, compared to the cod-sized heads in the hand-recovered finds.

11.6 Shell

11.6.1 Results and Discussion

11.6.1.1 Small quantities of marine shell were recovered by hand-collection from three deposits, with the vast majority being a collection of large mussel (*Mytilus edulis* L.) valves (to 76mm; 136.0g; minimum number of valves = 18; minimum number of individuals = 11) from context [56], the fill of medieval refuse pit [80]. This deposit also yielded a single fragment of common limpet (*Patella vulgata* L.), which was missing its apex (base width to 36mm; 2.0g) and one other unidentified shell fragment (to 16 mm; <0.1g). Context [79], a likely medieval deposit, gave approximately 25 small fragments of mussel shell (to 22mm; 0.6g), probably representing a single valve. Context [304], the fill of a modern service trench [305], gave a single mussel fragment (to 52mm; 4.5g).

11.6.1.2 Most, if not all, of the remains almost certainly represent human food waste, the collection of mussel valves from context [56] in particular, but they were too few to be of any further interpretative value.

11.7 Retention and Disposal

11.7.1 Unless required for the recovery of additional material for radiocarbon dating or purposes other than the study of biological remains, all of the remaining unprocessed sediment may be discarded. The plant remains recovered from the processed sub-samples, together with the faunal assemblage, should be retained as part of the physical element of the Site Archive for the present.

11.8 Recommendations for Further Work

11.8.1 No further plant macrofossil analysis is required for any of the Roman samples, due to the small assemblages and poor preservation of charred plant remains. However, the preservation of charred plant remains (albeit limited) might suggest that other features on the site may have the potential to provide further information about diet and crop husbandry practices in the Roman period.

11.8.2 Any additional material from medieval ditch fill [2067] is recommended for full analysis in order to recover additional food waste and provide details of the palaeoenvironment of the site. Any further animal bone, fish bone and shell, recovered from this deposits would also warrant analysis.

11.8.3 At this stage, further work on the existing faunal assemblage is not recommended. However, the assemblage should be retained for any future synthesis of archaeological investigations in this part of Newcastle.

³¹ Gidney 2009.

11.8.4 Any further archaeological intervention at this site, or any other in the vicinity, should target medieval waterlogged deposits for the recovery of faunal remains. Any such future sampling strategy should include in its design, sufficient volume for the recovery of craft working debris, small elements of sheep and pig, and small species such as birds and fish, to complement the hand-recovered assemblage, which is inevitably biased towards cattle-size bone fragments.

	<i>Context</i>	39	215	513	1033	1067	2067	2050	2073	2076	2081
	<i>Sample</i>	8	4	7	10	15	21	20	23	25	26
	<i>Feature</i>	Structured deposit?	Pit	Oven	Layer	Layer	Ditch	Layer	Pit	Layer	Layer
	<i>Provisional Date</i>	Roman	Medieval	Roman	Roman	Roman	Medieval	Roman	Roman	Roman	Roman
<i>Material available for radiocarbon dating</i>		✓	✓	✓	-	✓	✓	-	✓	✓	✓
<i>Volume processed (l)</i>		2	3	5	6	10	9.5	10	7	8.5	10
<i>Volume of flot assessed (ml)</i>		2	6	2	2	5	1200	40	15	30	150
<i>Residue contents (relative abundance)</i>											
Bone (calcined)	indet. frag.	-	-	-	1	1	-	2	1	1	1
Bone (burnt)	indet. frag.	-	-	-	-	-	1	-	-	-	-
Bone (unburnt)		1	1	1	1	-	1	1	2	1	1
Bone (fish)		-	-	-	-	-	2	-	2	-	-
CBM / daub / mortar		-	-	1	-	-	1	1	1	2	2
Charcoal		1	1	1	1	1	-	1	2	1	1
Clinker / cinder		2	1	1	3	3	1	3	2	3	3
Coal		3	1	1	3	3	1	4	2	2	4
Magnetic residue (e.g. hammerscale)		1	-	-	1	1	1	-	-	1	1
Metal object (Fe)		-	-	-	-	-	1	-	-	-	-
Glass (total no.)	bead	1	-	-	-	-	-	-	-	-	-
Glass (total no.)	shard	-	-	-	-	-	-	-	1	2	4
Mineralised concretions		-	-	-	-	1	-	-	-	-	-
Pottery (total no.)	sherds	6	1	-	6	2	10	-	16	2	13
Semi-vitrified fuel waste		1	-	-	-	1	-	-	-	-	-
Vivianite		-	-	-	-	-	2	-	-	-	-
Wood		-	-	-	-	-	2	-	1	-	-
<i>Flot matrix (relative abundance)</i>											
Bone (calcined)	indet. frag.	1	-	-	-	-	1	-	-	-	-
Bone (unburnt)		-	-	-	-	-	1	-	-	-	-
Bone (fish)		-	-	-	-	-	2	-	-	-	-
Charcoal		1	1	1	1	1	3	2	2	1	-
Clinker / cinder		1	-	-	1	1	-	2	1	3	3
Coal / coal shale		1	-	1	1	-	1	1	-	1	2
Vegetative material (uncharred)		-	1	-	-	-	4	-	-	-	-

Relative abundance is based on a scale from 1 (lowest) to 5 (highest)

Table 11.1. Data from plant macrofossil assessment

	<i>Context</i>	39	215	513	1033	1067	2067	2050	2073	2076	2081
	<i>Sample</i>	8	4	7	10	15	21	20	23	25	26
	<i>Feature</i>	Structured deposit?	Pit	Oven	Layer	Layer	Ditch	Layer	Pit	Layer	Layer
	<i>Provisional Date</i>	Roman	Medieval	Roman	Roman	Roman	Medieval	Roman	Roman	Roman	Roman
<i>Flot matrix (relative abundance) (continued)</i>											
	Culm node (charred)	-	-	-	-	-	-	-	1	-	-
	Heather twigs (charred)	-	-	-	-	-	-	1	-	-	-
	Insect / insect egg case	-	-	-	-	-	2	-	-	-	-
	Semi-vitrified fuel waste	-	-	-	-	-	-	-	1	-	-
	Uncharred seeds	-	-	-	-	-	3	-	-	1	-
	Vivianite	-	-	-	-	-	1	-	-	-	-
	Wood	-	-	-	-	-	3	-	-	-	-
<i>Charred remains (total number)</i>											
	(a) <i>Anthemis cotula</i> (Stinking chamomile)	achene	-	-	-	-	2	-	-	-	-
	© <i>Avena</i> spp (Oat species)	grain	-	1	-	-	11	-	3	3	-
	(c) <i>Cerealia</i> indeterminate	grain	-	1	-	-	3	-	4	-	-
	(c) <i>Hordeum</i> spp (Barley species)	grain	1	-	-	-	1	-	-	-	-
	(c) <i>Triticum</i> cf. <i>aestivum</i> (cf. Bread Wheat)	grain	-	1	-	-	2	-	-	-	-
	(c) <i>Triticum</i> spp (Wheat species)	grain	-	-	2	-	-	-	20	1	-
	(h) <i>Calluna vulgaris</i> (Heather)	twigs	-	-	-	-	31	-	-	-	-
	(t) <i>Corylus avellana</i> (Hazelnut)	nutshell fragment	-	-	-	-	5	-	-	-	-
	(x) Brassicaceae undifferentiated (Cabbage family)	seed	-	-	-	-	5	-	-	-	-
	(x) Poaceae undifferentiated >2mm (Grass family)	caryopsis	-	-	-	-	7	-	3	14	-
<i>Waterlogged remains (relative abundance)</i>											
	(a) <i>Fallopia convolvulus</i> (Black Bindweed)	nutlet	-	-	-	-	1	-	-	-	-
	(a) <i>Fumaria</i> spp (Fumitory)	seed	-	-	-	-	1	-	-	-	-
	(a) <i>Raphanus raphanistrum</i> (Wild Radish)	pod	-	-	-	-	1	-	-	-	-
	(a) <i>Urtica urens</i> (Small Nettle)	achene	-	-	-	-	1	-	-	-	-
	(h) <i>Rumex acetosella</i> (Sheep's Sorrel)	nutlet	-	1	-	-	2	-	-	-	-
	(r) <i>Galeopsis</i> spp (Hemp-nettle)	nutlet	-	-	-	-	2	-	-	-	-
	(r) <i>Hyoscyamus niger</i> (Henbane)	seed	-	1	-	-	-	-	-	-	-
	(r) <i>Persicaria maculosa</i> (Redshank)	nutlet	-	-	-	-	3	-	-	-	-

[a=arable; c=cultivated; r=ruderal; t=tree; w=wetland; x=wide niche]. Relative abundance based on a scale from 1 (lowest) to 5 (highest).

Table 11.1 (continued). Data from plant macrofossil assessment

Context		39	215	513	1033	1067	2067	2050	2073	2076	2081
Sample		8	4	7	10	15	21	20	23	25	26
Feature		Structured deposit?	Pit	Oven	Layer	Layer	Ditch	Layer	Pit	Layer	Layer
Provisional Date		Roman	Medieval	Roman	Roman	Roman	Medieval	Roman	Roman	Roman	Roman
(r) <i>Polygonum aviculare</i> (Knotgrass)	nutlet	-	-	-	-	-	1	-	-	-	-
(r) <i>Sonchus asper</i> (Prickly Sow-thistle)	achene	-	-	-	-	-	1	-	-	-	-
(r) <i>Urtica dioica</i> (Common Nettle)	achene	-	3	-	-	-	3	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel)	nutshell fragment	-	-	-	-	-	4	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)	pip	-	-	-	-	-	1	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe)	fruitstone	-	2	-	-	-	-	-	-	-	-
(t) <i>Rubus fruticosus</i> agg. (Bramble)	fruitstone	-	5	-	-	-	2	-	-	-	-
(w) <i>Carex</i> spp (Sedges)	biconvex nutlet	-	-	-	-	-	1	-	-	-	-
(w) <i>Carex</i> spp (Sedges)	trigonus nutlet	-	1	-	-	-	2	-	-	-	-
(w) <i>Persicaria lapathifolia</i> (Pale Persicaria)	nutlet	-	-	-	-	-	2	-	-	-	-
(w) <i>Ranunculus flammula</i> (Lesser Spearwort)	achene	-	-	-	-	-	1	-	-	-	-
(w) <i>Ranunculus sceleratus</i> (Celery-leaved buttercup)	achene	-	-	-	-	-	1	-	-	-	-
(x) Brassicaceae undiff. (Cabbage family)	seed	-	-	-	-	-	1	-	-	-	-
(x) Caryophyllaceae undiff. (Pink family)	seed	-	-	-	-	-	2	-	-	-	-
(x) Chenopodiaceae (Goosefoot family)	seed	-	1	-	-	-	4	-	-	-	-
(x) <i>Potentilla</i> spp (Cinquefoils)	achene	-	1	-	-	-	1	-	-	-	-
(x) <i>Prunella vulgaris</i> (Selfheal)	achene	-	-	-	-	-	1	-	-	-	-
(x) <i>Pteridium aquilinum</i> (Bracken)	fronds	-	-	-	-	-	2	-	-	-	-
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)	achene	-	-	-	-	-	2	-	-	-	-
(x) <i>Rumex</i> spp (Dock)	nutlet	-	-	-	-	-	1	-	-	-	-

[a=arable; c=cultivated; r=ruderal; t=tree; w=wetland; x=wide niche]. Relative abundance based on a scale from 1 (lowest) to 5 (highest)

Table 11.1 (continued). Data from plant macrofossil assessment

Context	Phase	Trench	Species	Element	Description
21	2e	10	cow	scapula	distal fused
30	2e	10	cow	horn core	chopped
38	3b	10	cow	scapula	preservation poor
42	2f	10	indeterminate	fragments	preservation poor
46	2f	10	indeterminate	fragments	preservation poor
56	3b	10			preservation good, dark brown surface patina
56	3b	10	cow	phalanx 1	proximal fused
56	3b	10	cow	jaw	chopped
56	3b	10	cow	upper molar 1/2	in wear
56	3b	10	cow	lower molar 1/2	in wear
56	3b	10	cow size	vc	cf chopped
56	3b	10	horse	jaw	chopped
56	3b	10	pig	frontal	
56	3b	10	pig	maxillary	premolar 2-4 molar 1, premolar 3 rotated
56	3b	10	pig	jaw	M 1 slight wear, chopped
56	3b	10	pig	rib	
56	3b	10	sheep/goat	mc	distal fused
56	3b	10	bird sp.	ulna	goose size
56	3b	10	fish	skull fragment	large gadid
79	3a	10			preservation good, dark brown surface patina
79	3a	10	cow	radius	distal fused, chopped
79	3a	10	cow	maxillary	2 nd molar in wear
79	3a	10	cow	humerus	distal fused, chopped
79	3a	10	cow	mt	split longitudinally, weathered
79	3a	10	pig	occipital	
79	3a	10	cow size	rib	proximal fused, possible horse
79	3a	10	fish	skull fragment	large gadid
79	3a	10	fish	skull fragment	large gadid
79	3a	10	fish	skull fragment	large gadid
79	3a	10	fish	skull fragment	large gadid
101	5	1	sheep/goat	radius	
102	5	1	sheep size	rib	
206	3b	2	pig	tooth	
304	5	3			preservation mixed
304	5	3	cow	astragalus	weathered
304	5	3	sheep/goat	mt	possible roof peg
304	5	3			proximal weathered distal chopped
304	5	3	pig	scapula	

Table 11.2a. Faunal remains (hand collected)

Context	Phase	Trench	Species	Element	Description
304	5	3	sheep size	rib	scapula
304	5	3	sheep size	rib	proximal fused, chopped
304	5	3	sheep size	rib	proximal fused
304	5	3	sheep size	rib	proximal fused
304	5	3	cow size	rib	proximal unfused
313	4	3	cow	lower molar 1/2	slight wear
1009	2e	10	cow	jaw	poor preservation
1048	4	10	indeterminate	fragment	poor preservation
2008	3a	11	cow	lower molar 3	in wear
2008	3a	11	cow	upper molar 1/2	in wear
2011	3a	11			preservation moderate
2011	3a	11	cow	phalanx 1	proximal fused
2011	3a	11	cow	jaw	
2011	3a	11	cow	upper molar 1/2	in wear
2011	3a	11	cow	dip4	deciduous lower premolar 4, fragment
2011	3a	11	sheep/goat	jaw	molar 2-3
2011	3a	11	pig	scapula	
2011	3a	11	pig	jaw	molar 1-2
2015	3b	11			preservation mixed, colour some dark brown
2015	3b	11	cow	humerus	chopped
2015	3b	11	cow	scapula	
2015	3b	11	sheep/goat	humerus	proximal fused
2015	3b	11	sheep/goat	scapula	distal fused, hook damage to blade
2015	3b	11	sheep/goat	mt	distal fused
2015	3b	11	sheep/goat	mc	distal fused, possible goat
2015	3b	11	sheep size	vertebra	cf anterior fused
2015	3b	11	oyster	shells	1 x upper, 1 x lower
2015	3b	11	winkle	shell	proximal unfused
2016	2f	11	cow	phalanx 1	proximal fused
2032	3b	11			preservation poor
2032	3b	11	cow	centroquartal	
2032	3b	11	cow	scapula	
2032	3b	11	cow	phalanx 1	proximal fused
2032	3b	11	sheep/goat	femur	
2032	3b	11	horse	incisor	
2035	3b	11	cow size	vertebra	poor preservation
2045	2e	11	cow	tooth	fragment
2063	2b	11	indeterminate	fragments	
2066	3b	11	cow	radius	proximal fused, chopped
2067	3b	11			preservation good

Table 11.2a (continued). Faunal remains (hand collected)

Context	Phase	Trench	Species	Element	Description
2067	3b	11	cow	femur	proximal unfused, chopped
2067	3b	11	cow	ilium	
2067	3b	11	cow	frontal	horn core sawn off
2067	3b	11	sheep/goat	tibia	proximal unfused
2067	3b	11	sheep/goat	mt	chopped
2067	3b	11	deer (red)	antler	tine both ends sawn
2070	2b	11	indeterminate	fragment	
2072	2b	11	pig	canine	
2078	2a	11	pig	radius	distal unfused
-	-	U/S	sheep size	rib	
-	-	U/S	sheep size	rib	rat nibbled
-	-	U/S	cow	incisor	
-	-	U/S	deer	antler	tine

Table 11.2a (continued). Faunal remains (hand collected)

Context	Phase	Trench	Sample	Species	Element	Description
39	2e	10	8	indeterminate	fragments	
215	3b	2	4	indeterminate	fragments	
513	2a	5	7	indeterminate	fragment	
1033	2b/c/d	10	10	indeterminate	fragment	
1067	2b/c/d	10	15	indeterminate	fragments	
2050	2d	11	20	indeterminate	fragment	mostly calcined
2067	3b	11	21	cow	jaw	chopped
2067	3b	11	21	sheep/goat.	tibia	chopped
2067	3b	11	21	pig	tibia	distal unfused
2067	3b	11	21	bird species	phalanx	toe probably domestic fowl
2067	3b	11	21	fish	asst	large and small pieces
2067	3b	11	21	shell	fragments	possible mussel
2067	3b	11	21	indeterminate	fragments	calcined
2073	2b	11	23	indeterminate	fragments	calcined
2076	2b	11	25	indeterminate	fragment	most calcined
2081	2b	11	26	indeterminate	fragments	most calcined

Table 11.2b. Faunal remains (from bulk samples)

12. POST-ROMAN POTTERY (*Jenny Vaughan*)

12.1 Summary

12.1.1 An assemblage of 278 sherds of post-Roman pottery weighing 4,829g was recovered. A detailed catalogue of the material is set out below in Table 12.2. Six of the sherds were later identified as flakes of ceramic building material or drain. There were a few fragments of 17th and 19th century material, but the majority of the pottery was medieval, ranging in date from the 12th to the 15th century.

12.2 Range and Variety

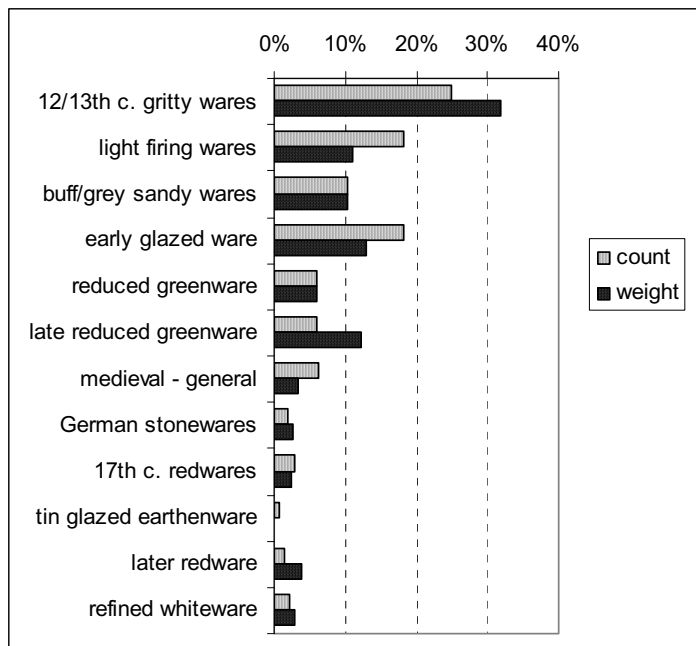


Table 12.1. Range and variety of post-Roman ceramics

12.2.1 There were several sherds of Dog Bank type ware and other coarse gritted fragments of 12th century type. The Dog Bank ware included the rim of a jar with the typical rouletting on the upper surface (from context [16]) and a base from context [2008]. A large part of a jar of the late 12th/early 13th century South Curtain Wall (SCW) type came from context [56] with a joining sherd from context [79]. It had the typical finger pressed rim and was heavily sooted. Another rim of this form, but unsooted, came from the same context. A similar but undecorated rim came from context [2066]. There were a number of other sherds, including three jar rims, of other possibly early 13th century gritty wares. These 12th/early 13th century wares were most numerous in the assemblage although over half the sherds and nearly two thirds by weight came from context [56].

12.2.2 Fragments of early glazed wares (egw) and light firing wares (buff and white) both made up about 18% of the assemblage by sherd count although a possible chipped handle and three relatively small bases were the only form sherds of egw present. However, an elaborate clubbed rim and a strap handle amongst the group of similar (buff/grey), but unglazed sherds might be from vessels with zones of glaze. Five jar rims of light firing wares were present. Some of these could be early 13th century vessels: clubbed rim from context [56] was of a form found associated with SCW material elsewhere. There was also a fragment of strap handle in Tyneside buff white ware from context [310]. Sherds of reduced green glazed vessels made up 12% of the group. Some, including a typical large strap handle, were the later 14th/15th century type, other slightly coarser sherds were perhaps late 13th/early 14th century.

12.2.3 A few fragments of German stonewares were present. These span the medieval/post-medieval period, some types being contemporary with the later reduced greenwares and others with the 17th century redwares, a few sherds of which were present here. There were also two small fragments of tin glazed earthenware of broadly the same date. The 19th century was represented by a few sherds of red earthenware and of refined whiteware.

12.3 Discussion

12.3.1 Work on the large assemblage of medieval pottery from the Castle in Newcastle indicates that the date ranges of the 12th century Dog Bank type wares and the SCW jars have little if any overlap. SCW appears to have quite a short life and may be contemporary with the rebuilding of the Castle in stone in the late 12th/early 13th century while Dog Bank ware occurs earlier. The SCW on this site may represent activity related to the building works. This is a small but interesting group of pottery and would be worthy of further work beyond assessment, particularly more detailed recording of the vessels present and a closer study of the fabrics.

Context	Phase	Fabric group no.	Fabric	Sherd count	Wt (g)	Sherd form	Comments
u/s	-	2	coarse gr	2	68		One is brownish, one thicker with grey core and buff/ob m/s.
u/s	-	2	dog b	1	3	b	Iron rich
u/s	-	3	buff gr	1	4		Thin
u/s	-	4	buff	4	15	r	Small jar rim with neck lid seat
u/s	-	4	buff	1	7		RM2
u/s	-	4	bw	4	61	b	
u/s	-	4	white	1	3	b	
u/s	-	5	o/grey	1	2		
u/s	-	5	ob	1	10		
u/s	-	6.1	egw	1	18		Some splashes - looks ir
u/s	-	6.1	egw	7	75	b	Misc
u/s	-	7	rg	2	31		
u/s	-	7	rg	2	4		
u/s	-	7	rg?	1	48	h	Smooth strap handle - ggl upper surface
u/s	-	10	med	4	15		
u/s	-	10	med	1	14		
u/s	-	15	lst	2	28		
u/s	-	17	c/fst	1	69		
u/s	-	27	er	3	50	b	
u/s	-	27	red	1	4		Int glaze
u/s	-	27	red ungl	1	14	b	
u/s	-	32	blgre	2	159	r	Large vessel
u/s	-	32	unglre	1	21		
u/s	-	50	?	2	16		
3	3a	5	pink h	1	4		Hard dark pink fabric spots of gl. Some fine whitish incl

16	3a	2	dog b2	3	58	r	Classic rim with rouletting. Very fresh
56	3b	2	grey gr	1	15	r	Finger imps along top
56	3b	2	wh gr	1	14	b	From a base?
56	3b	2.2	scw	18	545	prof	Rim from [79] joins. Dark grey fabric with buff margins, light brownish red int, heavily sooted
56	3b	2.2	scw	1	50	r	Dark grey fabric with light grey surfaces int and ext
56	3b	3	grey sandy	10	281		Two families, look slightly different. Heavily sooted but one has buff ext. Other brownish grey margins and darker core. Micaceous
56	3b	3	misc	5	51		May be from scw type vessels
56	3b	4	buff	1	35	r	Has grey core. Form as buff jars assoc with scw
56	3b	4	buff	1	14	r	Exp sl everted rim. Not typical
56	3b	4	buff misc	2	20		One is thin with bright light orange ext. Other dull light brown sooted. Hand made
56	3b	4	buff sandy	2	18	r	Very angular rim with flange
56	3b	6	bgrey	6	125	b	A relatively fine/smooth fabric. Whitish int s, ext sooted and gl in patches/streaks
56	3b	6	bgrey	1	27		Not unlike other bgrey but not sooted and with fairly smooth int green gl cover
56	3b	6	og	1	52	h	Strap handle has dark grey core. Spl of green gl
56	3b	6.1	egw	7	102		Misc
56	3b	10	grey	3	40		Dark fabric, sooted surface small spots gl
56	3b	51	cbm?	1	24		
73	4	28	tge	1	6		Pale blue glaze
79	3a	2.2	scw	1	73	r	Part of vessel in [56]
79	3a	3	misc	3	57		Seems to be as in [56]
79	3a	3	pink	1	9		
79	3a	6	bg?	1	56	b	Run of glaze beneath. May be FG 7. Light brown margins
79	3a	7	rg	4	155	r	Rim of large vessel. Sandy fabric - 13th c?
103	5	8	lrg	1	10		
109	3b	3	pinkgr	1	13		Sooted - bit from base
112	3a	2	bgr h	1	18	r	Ev angular jar rim
112	3a	2	gritty	2	10		One is black one buff/white, coarse gr
112	3a	4	buff h	1	23	b	Thin base. Light grey sandy fabric
201	5	2	dog b	2	14		Red thin, and pink
201	5	2	whgr	1	7		May be DB
201	5	50	?	1	7		May be brick flake
206	3b	6.1	egw	2	31	r?	May be chipped handle. Mid grey with lighter margins. Gl surface mainly flaked away
304	5	2	dog b1	1	17		
304	5	4	buff	1	5		Thin sandy
304	5	4	bw	1	28		
304	5	6	bg	1	5		
304	5	6.1	egw	1	15		Mid grey, 'gritty' gl, ox int surface
304	5	8	lrg	2	30		One is small flake
304	5	10	lt grey f	1	24		
304	5	32	blackw	1	5		Shiney black gl. ? Ref red teapot
304	5	33	refww	4	31	b r	Chipped base of pink lustre ves. Small frag sponge dec. Plain rim with line. Small frag ? From jar with writing
304	5	51	drain?	3	31		Flakes of coarse material, prob drain pipe
307	3b	6.1	egw	1	20		Pale grey
310	4	4	bw	1	70	h	Strap handle with some ggl
313	4	6	bg	1	12		
313	4	6	bg	1	3		
313	4	6.1	eg1	1	17		

313	4	7	rg	1	4		
506	4	8	lrg	2	176	r+h	
1004	4	33	refww	1	84	prof	Blue tp saucer - J. Wood
1004	4	33	util ww	1	22	r	Jar rim
2008	3a	2	dog b	1	38	b	Light orange buff fabric
2008	3a	5	osandy	1	6		
2008	3a	6	bgrey	1	4		
2008	3a	6	o/rir	1	4		
2008	3a	6.1	egw	4	31		Misc
2008	3a	7	rg	1	11	h	Bit of handle
2008	3a	7	rg?	2	4		
2008	3a	16	rst	1	15	h	
2008	3a	28	tge	1	1		
2009	4	27	er	2	35	h	Stub of handle
2010	3a	4	sandy buff	1	21	r	Jar rim - squarish with int hollow
2010	3a	6	bgrey	1	8	b	Green gl int
2010	3a	6.1	eg1	3	13		
2010	3a	8	lrg	1	6		
2010	3a	27	er	1	6	b	Chipped base
2011	3a	3	greygr	1	10	r	Small club jar rim
2011	3a	4	buff	2	6		
2011	3a	6	ir	2	14	r	Dark grey with ox m/s. Everted/rounded rim
2011	3a	6.1	egw	1	9		Light grey
2011	3a	10	ox?	1	4		Ungl - could be anything
2012	4	4	buff	2	10		Both sooted
2012	4	10	grey	1	11		Sooted
2015	3b	2	dog b	1	2		
2015	3b	8	lrg	8	215	b	Chip of handle
2015	3b	8	lrg?	1	23		Looks like burnt/oxidised
2020	2e (int)	6	ir	1	28	b	Brown m/s
2020	2e (int)	7	rg	1	8		
2020	2e (int)	10	grey	2	37	b	Not sv
2032	3b	4	buff	1	2		
2032	3b	4	white	4	21		Sooted
2032	3b	7	rg	1	3		
2032	3b	8	lrg	1	114	h	Large strap handle
2033	3b	4	bw	9	37		
2033	3b	6	ir	2	37		Dark grey with red brown ext m/s
2033	3b	7	rg	1	13		
2035	3b	6	bgrey	3	10		
2035	3b	6.1	egw	2	15	b	
2035	3b	16	rst	1	9	h	Raeren?
2035	3b	27	er	2	24	h ?r	Small rod handle
2037	3b	6	bgrey	1	24	r	Elab club rim - trace of glaze
2037	3b	6.1	egw	4	32		Misc
2050	2d (int)	51	cbm?	1	6		Flake
2063	2b (int)	3	buff gr	2	32		One is slightly streaky buff/light grey and thick- sooted. Other is white with grey core and dull gl
2063	2b (int)	4	buff	1	16		Buff fairly hard thin thrown with dark grey int
2063	2b (int)	6	bg	1	13		Sooted and with runs of gl int and ext
2066	3b	2.2	ir/scw	1	32	r	Rim not frilled but as scw. Bright orange m/s dark grey core
2066	3b	2.2	scw?	1	20		Flattish piece
2066	3b	4	buff	2	18	b	
2066	3b	6.1	egw	6	40		Quite good gl
2066	3b	6.1	irgl	2	54		
2066	3b	10	med	1	2		
2067	3b	3	bggr	1	27	r	Triangular jar rim
2067	3b	3	bp/ggr	2	34	r	Elaborate rim
2067	3b	3	greygr	1	13		Red brown int surf
2067	3b	4	bp?	1	13	b	Gl ext and sooted
2067	3b	4	buff	1	26	b	Base with some gl beneath
2067	3b	4	bwh	1	33		
2067	3b	6	bgrey	1	24	r	Elab club rim as in [2037]
2067	3b	6	o/rg	1	39	b	
2067	3b	6	wgrgl	1	5		
2067	3b	6.1	eg1?	1	45		

2067	3b	6.1	egw	3	80	b	Mid grey with pink-brown int surface and ext where not gl, slightly pitted glaze
2067	3b	6.1	egw	3	18		
2067	3b	10	med	3	13		Misc
2067	3b	51	cbm	1	3		
Total				278	4,829		

Table 12.2. Catalogue of post-Roman pottery

13. SUMMARY DISCUSSION OF THE ARCHAEOLOGICAL FINDINGS

13.1 Phases 1a & 1b

- 13.1.1 Natural Boulder Clay - the glacial 'drift' geology in this part of Newcastle – was the uppermost natural material encountered. It was encountered during the excavation of Trench 11 at a maximum height of 26.83m OD.
- 13.1.2 Natural Boulder Clay was overlain by a sub-soil which pre-dated use of the site during the late 2nd/early 3rd century. Recorded in Trench 11 at a maximum height of 27.23m OD it was only 90mm thick.

13.2 Phase 2: Roman

- 13.2.1 Roman deposits, features and structures recorded at the site have been allocated to six sub-phases of an overall Phase 2, covering the Roman period. Phases 2a, 2b, 2c and 2d are representative of activity pre-dating and associated with the construction and usage of a *vicus* carriageway, the roughly north-south aligned Street 1. Phases 2e and 2f are representative of activity associated with the construction and usage of a later *vicus* carriageway, the roughly east-west aligned Street 2.
- 13.2.2 Current knowledge of the location and layout of the fort of *Pons Aelius* suggest that Street 1 lay c. 25-30m from the western wall of the fort (Figure 3). Street 1 appears to have been set out on a NNW-SSE alignment and within the boundaries of the site or possibly to the north of the site, below Westgate Road, Street 1 may have formed a right angled junction with a road which ran on a WSW-ENE alignment towards a hitherto undiscovered western 'side' gate of the fort. Construction of Street 1 and the associated street frontage buildings likely date to the late 2nd or early 3rd century, the period during which the fort was constructed. The carriageway and street frontage buildings were subsequently modified probably during the 3rd century, a period which earlier excavations have demonstrated saw modifications to many of the buildings and streets within the fort.³²
- 13.2.3 If the proposed line of the western wall of the fort is correct, Street 2 lay only c. 10-15m to the west of it (Figure 3). This street probably did not run towards the western 'side' gate of the fort, although it is difficult to be certain given the limited degree to which it was possible to expose the feature and also given the limited amount of previous investigation conducted towards the western limit of the fort (the western wall of which has never been identified). Street 2 probably dates to the 3rd or 4th century, a period which earlier excavations have demonstrated witnessed re-development within the fort, with some buildings being rebuilt and, for example, resurfacing of the *via praetoria* and at least one of the intervallum streets.³³

13.3 Phase 2a: Late 2nd/Early 3rd Century

- 13.3.1 The remains of Street 1 were recorded in the central part of Trench 10, and possibly Trench 4. It was a north-south aligned carriageway located centrally to the site and constructed from layers of silt, clay, cobbles and gravel. The uppermost layer associated with Street 1 during Phase 2a was recorded at a maximum height of 27.78m OD and may represent either the street surface or a sub-base to a surface which had subsequently been removed. A gradual slope evident at the western extent of the carriageway probably represents the street camber.

³² Snape and Bidwell 2002, 9.

³³ Snape and Bidwell 2002, 9.

- 13.3.2 Either contemporary with, or slightly pre-dating/post-dating, the construction of Street 1 was the development of land adjacent to its eastern and western frontages. Alongside the western frontage a north-south orientated stone wall, levelling layers and floor surfaces were recorded in Trench 10, whilst in Trench 2 further evidence of Phase 2a floor surfaces were also present. The distance between Trenches 2 and 10 suggests the structural elements probably relate to separate buildings fronting onto Street 1 during Phase 2a.
- 13.3.3 To the east of Street 1, three east-west orientated stone walls were recorded within Trench 11. The presence of an iron sheet within the fabric of the southern wall may represent an 'offering' interred during construction/modification. A number of levelling layers and floor surfaces were associated with these walls during Phase 2a and heat damage to one wall could suggest use for industrial activities and/or that a fire episode had occurred. It is possible that two buildings were in evidence, with the c. 1.75m wide space between the two southernmost walls probably representative of an east-west aligned pathway.
- 13.3.4 Further evidence related to the structural development of the eastern frontage of Street 1 during Phase 2a was recorded in Trenches 5 and 6, where a north-south aligned sandstone wall and a floor surface were encountered. The wall had a possible stokehole and the masonry showed evidence of having been heat affected, potentially indicating it had once formed part of an oven and providing further evidence of industrial activities being undertaken in the street frontage properties.

13.4 Phase 2b/c/d: 3rd Century

- 13.4.1 Following the construction of Street 1, episodes of street maintenance/modification were undertaken. It is impossible to correlate these episodes with the sub-phases of activity recorded at the street frontages, therefore it is only possible to conclude that maintenance of Street 1 was undertaken at unqualified times during Phase 2b, Phase 2c and/or Phase 2d.
- 13.4.2 At least four episodes of street maintenance were evident. Associated with the maintenance were make-up layers of sand, silt and clay, and compact gravel layers representative of metalled carriageway surfaces and/or sub-bases. As a result of this activity, the street had been raised by c. 0.40m by the end of Phase 2d, possibly suggesting a continued need to raise the surface height of Street 1, perhaps as its eastern and western frontages became increasingly built up over time. In addition, it is possible that the remains reflect attempts to widen Street 1.

13.5 Phase 2b: 3rd Century

- 13.5.1 After the structural developments of the eastern and western frontages of Street 1 during Phase 2a, it is probable that some buildings remained in use into Phase 2b. However, whilst modification of the existing buildings may have been undertaken, no clear evidence of new build was found and, in some parts of the site, a period of construction inactivity seems to have typified the early part of Phase 2b.

- 13.5.2 Whilst it is possible that the Phase 2a buildings to the west of Street 1 remained in use during the early part of Phase 2b, the presence of accumulated layers containing very little cultural material may suggest that activity was reduced. In contrast, the latter part of Phase 2b seems to have been a time of renewed activity with a number of surfaces recorded in Trench 10, with at least one of these exhibiting evidence suggestive of industrial activity. The longevity of these Phase 2b surfaces was impossible to establish, however the horizons had been covered by a mixture of occupation deposits, dump layers and demolition material by the transition between Phases 2b and 2c, strongly suggesting that they were no longer in use by this time.
- 13.5.3 In a similar fashion, it is probable that buildings to the east of Street 1 also remained standing and in use during Phase 2b. A sequence of Phase 2b levelling layers and floor surfaces was recorded abutting Phase 2a masonry in Trench 11, whilst dump/levelling layers in Trench 5 may also relate to the continued usage/existence of a building in the northernmost part of the site. Phase 2b levelling and floor layers in Trench 11 were post-dated by dump/levelling layers, demolition deposits and a pit, which could suggest that the buildings were demolished, either in part or entirely, at the transition between Phase 2b and Phase 2c.

13.6 Phase 2c: 3rd Century

- 13.6.1 During Phase 2c, possible evidence of drainage features was found to the east and west of Street 1, whilst evidence of occupation and building construction/maintenance was also recorded.
- 13.6.2 To the west of Street 1, floor layers and a beamslot, or possible drain, imply that a building existed at that location during Phase 2c. However, evidence was also found to suggest that any existing building was probably compromised by the construction of NE-SW aligned culvert/drain. At least part of the feature was lined with sandstone slabs and although its alignment is at variance with that proposed for Street 1, it should not be discounted that it represents a western street-side drainage feature, possibly replacing an earlier phase of street side drainage. If the feature does indeed represent a street-side culvert/drain, it may be that the alignment of Street 1 shifted during Phase 2c or that the correct alignment of Street 1 differs to that proposed.
- 13.6.3 On the eastern street frontage, Phase 2c floor surfaces were recorded in Trenches 6 and 11, suggesting buildings stood at these locations. In Trench 6, the floor surface was subsequently truncated by a Phase 2c refuse pit, while in Trench 11 the floor surface was cut by a linear feature, either part of a beamslot or a possible drain.

13.7 Phase 2d: 3rd Century

- 13.7.1 Phase 2d represents the final usage of Street 1 and, as such, it is probable that the sub-phase represents a period of decline ultimately leading to the abandonment of Street 1 as a utilised carriageway. Despite this, evidence for the construction/maintenance of street frontage buildings was recorded, in particular on the eastern frontage where a more complex sequence of occupation was recorded. The recorded evidence suggests a wide variation in usage between the eastern and western street frontages during Phase 2d, although this may simply be an artefact of the nature of the investigations. It is possible, however, that the eastern part of the site became prioritised for use during Phase 2d.

- 13.7.2 Phase 2d dump/levelling layers and floor surfaces were recorded to the west of Street 1 in Trenches 2 and 10, and whilst no further evidence relating to buildings was found at these locations, the presence of these remains suggests that some structural activity took place there.
- 13.7.3 To the east of Street 1 in Trench 11, the earliest deposits assigned to Phase 2d comprised a metallised gravel surface post-dated by a number of dump/levelling layers. The dump/levelling layers were cut through by two stakeholes which may have formed part of an east-west orientated internal partition or external fence. Elsewhere, further evidence of activity alongside the eastern frontage was encountered in Trenches 5 and 6, where dump/levelling layers and the remnants of a possible surface were present, suggesting that some form of occupation continued.

13.8 Phase 2e: 3rd to 4th Century

- 13.8.1 Phase 2e denoted a marked change in site activity with Street 1 evidently falling into disuse and the western street frontage area likely being largely unused, while land to the east remained occupied.
- 13.8.2 Deposited above the uppermost layer representing Street 1 in Trench 10 was either a clay floor surface post-dating the street or a dump layer associated with its disuse. Cut through this were two pits, one of which contained an upturned, partially complete 3rd century cooking vessel and a 3rd century rimmed bowl. The deliberate placement of the vessels suggests a form of structured deposition, which may have been associated with the disuse and 'closure' of Street 1. These pits were in turn post-dated by dump/levelling layers that further denoted disuse of Street 1 during Phase 2e.
- 13.8.3 To the west, dump layers overlay the Phase 2d horizon in Trenches 2 and 10, suggesting that the western part of the site was little utilised during Phase 2e.
- 13.8.4 In contrast, the eastern part of the site seems to have remained in use with a dump/levelling layer and an east-west aligned wall recorded in Trench 11. In addition, a linear/square construction cut containing a sandstone lining may have had an industrial purpose.
- 13.8.5 Ascertaining the longevity of the east-west wall in Trench 11 is impossible, however it was truncated by an east-west orientated 'robber' trench or a possible drainage gully during Phase 2e, suggesting its use was short-lived. In addition, an east-west 'robber' cut was present at the northern extent of Trench 11, indicating further evidence of structural 'robbing' and also alluding to the location of an earlier structural element. Furthermore, the possible industrial structural feature had also ceased in use by the end of Phase 2e and instead was utilised for the disposal of refuse.
- 13.8.6 Post-dating 'robbing'/disuse of the Phase 2e masonry in Trench 11 were dump/levelling layers which evidently related to episodes of demolition.
- 13.8.7 A circular feature in Trench 11, containing the remains of a blackened, sandstone lining, may represent a small hearth base, in use either contemporary with or slightly post-dating the disuse/demolition of the Phase 2e buildings.

13.9 Phase 2f: 3rd to 4th Century

- 13.9.1 A shift in the spatial organisation of the site evidently occurred during Phase 2f, the sub-phase which also represents the final episode of Roman activity. Despite this, Phase 2f was nonetheless a period of continued activity and structural development and of particular note was evidence of an east-west orientated carriageway, Street 2, and associated street frontage activity on its northern side.

- 13.9.2 Street 2 was recorded in Trench 11 at heights between 27.58m OD and 28.05m OD, a variation which reflects the camber of the metalled carriageway surface. To the north of Street 2m floor surfaces, dump/levelling layers and an east-west orientated 'robber' cut were recorded, these alluding to the existence of a building. Post-dating the 'robber' cut was a dump layer and a small area of cobble surface, which may represent the raising, and widening of Street 2 during Phase 2f.
- 13.9.3 The street was not encountered beyond Trench 11, although it is possible that Phase 2f activity in Trench 10 may represent development on its northern frontage. Floor layers, two north-south orientated stone walls and a subterranean stone-lined tank or drainage channel were recorded.

13.10 Phase 3a: Post-Roman-Medieval

- 13.10.1 Phase 2f marked the final sub-phase of archaeologically evident Roman activity and thereafter the site seems to have been abandoned as a place for occupation, with buildings either demolished or left to degrade *in situ*. The dump layers and accumulated soils assigned to Phase 3a could date to any era post-dating Roman activity until utilisation of the site during the medieval period. Post-dating the Phase 2f horizon in Trench 10 were demolition layers associated with the removal/degradation of Roman structures. Phase 3a dump layers post-dated the demolition horizon in Trench 10, whilst similar dump deposits were also encountered in Trenches 1 and 11.
- 13.10.2 Subsequent to the demolition and dump layers was the formation of soil horizons, recorded in Trenches 3, 6 and 10. Collectively, these 'developed soils' formed through the accumulation of material during post-Roman abandonment of the site. There was no clear evidence from the site to suggest occupation during the Anglo-Saxon period, an era which earlier excavations have demonstrated saw decay and collapse of Roman period structures before robbing, levelling and thorough clearance of some areas within the ruined fort, followed by the construction of features which ignored previous Roman alignments.³⁴ Thereafter an extensive Anglo-Saxon cemetery was established in the area of the fort, but again, no evidence was recorded at the site herein described to suggest that the cemetery extended this far west.

13.11 Phase 3b: Medieval

- 13.11.1 Evidence for reuse of the site during the medieval period was recorded throughout the site and comprised pits, ditches and possible evidence of buildings.
- 13.11.2 In Trench 11, a levelling layer, stone surface, lime mortar spread and two north-south orientated beamslots and/or eaves gullies were recorded and collectively suggest that one or more medieval buildings existed in this part of the site. A clayey silt layer likely relates to the disuse/demolition of the building during Phase 3b. Elsewhere, a cobble surface in Trench 1 may indicate that either a building or a yard occupied the north-western part of the site during Phase 3b.
- 13.11.3 With the exception of the limited evidence of medieval buildings, much of the Phase 3b evidence evidently reflects drainage activities and waste deposition. North-south aligned drainage ditches were recorded in Trenches 10 and 11, whilst refuse pits were recorded in Trenches 2, 3 and 10.

³⁴ Snape and Bidwell 2002, 111.

13.12 Phase 4: Late Post-medieval to Early Modern

- 13.12.1 The earliest Phase 4 activity was characterised by 'robbing' of structures and ground raising, followed by the re-development of the site during the 18th/19th century. Evidence of re-development was recorded in Trenches 8 and 10, where east-west and north-south orientated stone walls were recorded. Cartographic sources of the 19th century denote structures on site at this time and it is thought probable that the structural remains represent elements of these historically attested buildings.
- 13.12.2 Post-dating the 18th/19th century structural remains and pre-dating the construction of the railway viaduct was a series of subterranean culverts recorded in Trenches 10 and 11. These comprised north-south aligned arched brick culverts and an east-west aligned brick and stone culvert. There was some evidence of culvert maintenance during Phase 4, whilst the humic fills of the structures indicate that they gradually silted-up over time. The differences of construction, in addition to evidence of repair, may imply two or more episodes of culvert construction.
- 13.12.3 The construction of the culverts was followed by further evidence of demolition and ground-raising, likely undertaken in advance of construction of the railway viaduct. Evidence of this construction was recorded in Trenches 1, 2, 3, 4, 5, 6, 7, 9, 10 and 11, where brick piers, comprising the foundations for railway arches, were recorded. There was some evidence of 19th century activity subsequent to the construction of the viaduct.

13.13 Phase 5: Modern

- 13.13.1 Archaeological activity related to the use of the site during the 20th century comprised service trenches and inspection chambers recorded across the site. Inspection chambers were recorded in Trenches 1, 3 and 6, while service trenches were recorded in Trenches 1, 2, 3, 4, 5, 6, 7, 8, 10 and 11. These were in turn sealed by dumps and levelling layers deposited in advance of the existing surface treatments, which represented ground level ahead of the archaeological work. A feature in Trench 10 Extension 1 and a service trench in Trench 11 – both post-dating the existing ground surface - represented the latest activity on site prior to the archaeological investigation and re-development of the site in the 21st century.

14. SUMMARY OF POTENTIAL FOR FURTHER ANALYSIS

14.1 Significance of the Results

- 14.1.1 As described in Section 3, the NERRF, the now well-established regional research framework, highlights the importance of research as a vital element of development-led archaeological work. As outlined in that section, several key priorities within the NERRF Research Agenda for the Roman period are of direct relevance to this project. In addition, the Research Agenda of *Frontiers of Knowledge*, the recently published research framework for Hadrian's Wall, has highlighted a gap in existing understanding of extramural settlement along the Wall and posed a series of outstanding questions relating to the relationship between the forts and their extramural settlements.
- 14.1.2 As a consequence, the Phases 2a, 2b, 2c, 2d, 2e and 2f activity recorded at the site is considered to be of significance in contributing to an understanding of Roman activity both at a local and at a regional level, with the data warranting further analysis, research and full publication. At a local level, the results of the archaeological work can contribute to an understanding of the chronology, layout, development and abandonment of the extramural settlement, while, in addition, the results also offer an opportunity to contribute to a wider understanding of the Roman fort *Pons Aelius*. Furthermore, at a regional level the results should be viewed as contributing to a wider understanding of Roman occupation in Northern Britain.
- 14.1.3 The post-Roman, medieval and post-medieval activity is also of significance in enabling an understanding of these periods both at the site and in the wider context of the city of Newcastle. As such, Phases 3a, 3b and 4 require further consideration and the results should be fully incorporated into any publication of the site to contribute to an understanding of these periods at a local level.

14.2 Recommended Further Work

14.2.1 Roman Pottery (including Samian Wares)

- 14.2.1.1 The Roman pottery requires a fully quantified Ceramic Archive catalogue (as defined by the guidelines of the Study Group for Roman Pottery³⁵). This should comprise detailed descriptions of the various fabric types, and their quantification by weight, sherd count and EVE (estimated vessel equivalents). It is recommended that a full publication report be produced for the pottery, which should consist of a table of the fabrics present, a catalogue of the vessels of particular interest, the illustration of approximately 15 vessels and a discussion of the early 3rd-century group. In addition, two of the samian stamps should receive further analysis prior to publication.
- 14.2.1.2 The pottery is in a stable condition and as such no further conservation is required. It is however recommended that all of the Roman pottery should be retained as part of the Site Archive.

14.2.2 Small Finds

- 14.2.2.1 The small finds form an integral component of the artefactual material recovered during the work and a report on them should be included in any publication of the site. The report should consist of a catalogue and a discussion of the artefacts of interest, with eight artefacts illustrated and two photographed.

³⁵ Darling 1999.

14.2.2.2 A legible coin (SF9) should be identified and 13 small finds should receive further analysis prior to publication. In addition, the iron spearhead (SF113) requires cleaning prior to publication, whilst thin-sectioning or ICPS analysis to identify place of origin is recommended for the triangular 'loom weight' (SF110).

14.2.3 Building Materials

14.2.3.1 Only a short note is recommended for the building materials, noting in particular the *opus signinum* moulding and the fired clay. All fragments listed as 'scrap' could be discarded.

14.2.4 Post-Roman Pottery

14.2.4.1 This is a small but interesting group of pottery and would be worthy of further work, e.g. more detailed recording of the vessels present and a closer study of the fabrics.

14.2.5 Biological Remains

14.2.5.1 No further plant macrofossil analysis is required for all of the sampled Roman contexts. However, if additional bulk material is available for medieval ditch fill [2067], full analysis is recommended due to the material recovered by sub-sample assessment.

14.2.5.2 At this stage, further work on the present faunal assemblage is not recommended. However, any further archaeological intervention at this site or in the vicinity should target waterlogged deposits of suspected medieval date for the recovery of faunal remains. Any future sampling strategy should include sufficient volume for the recovery of craft working debris and small mammal, bird and fish bone.

14.2.6 Archaeometallurgical Remains

14.2.6.1 The fragments of clay lining with finger marks are unusual and it is suggested that these are illustrated for publication and retained. Further analysis of the metalliferous slags and burnt clay is not recommended and the material may be discarded. However, their presence should be noted in the publication report.

14.2.7 Stratigraphic Evidence

14.2.7.1 Further examination of the stratigraphic evidence is required, subsequent to/in conjunction with the further work on the other elements of the collected data, as recommended above. In addition, the results of this work will inevitably necessitate further research into the archaeological setting of the site to facilitate a wider understanding of the archaeological sequence on the site, in its near vicinity and beyond. Whilst the Roman activity is of inherent interest and will inevitably comprise the majority of the additional work, further consideration of the post-Roman, medieval and post-medieval stratigraphic evidence should also be undertaken.

14.3 Publication Proposal

14.3.1 It is considered that the archaeological evidence collected at the site merits full publication. This should comprise a detailed report published in a regional archaeological journal, such as *Archaeologia Aeliana*.

14.3.2 The publication should, as a minimum, contain the following:

Abstract. An introductory paragraph that will summarise the publication, including its location, period, finds and significance.

Introduction. This section will describe the setting of the site, detail the background to the investigations and outline the methodologies employed.

Geological and Topographical Background. This section will explain the geology and topography of the site.

Archaeological Background. This section will set the results in archaeological context, with a particular focus on extramural Roman settlement in the North.

Archaeological and Artefactual Evidence. This section will detail the results of the investigations and will include a synthesised description of the evidence from the evaluation and the subsequent work.

Discussion. This section will propose an interpretation of the archaeological remains based on the excavated features and the artefactual evidence.

Illustrations. These will include: site location plan, location plan of the areas of investigation, plans and section drawings of archaeological remains, interpretative plans, illustrations of artefacts.

PART C: ACKNOWLEDGEMENTS AND REFERENCES

15. ACKNOWLEDGEMENTS AND CREDITS

Acknowledgements

Pre-Construct Archaeology Limited would like to thank C. Spencer Limited for commissioning the work described in this report on behalf of Network Rail. The roles of Heath Williamson (procurement), Mark Kynman (QS), Gordon Davies and Ray Hopper (both site) are particularly acknowledged.

The liaison role of Adam Curson, Scheme Project Manager for Network Rail, is acknowledged.

The curatorial role of the Tyne and Wear Specialist Conservation Team, particularly Dave Heslop, the County Archaeologist, is acknowledged. The input of Mike Collins of English Heritage is also acknowledged.

PCA Credits

Fieldwork: Aaron Goode (Site Supervisor), Adrian Bailey, Mick Coates, Amy Roberts, Alan Telford, and Scott Vance

Report: Aaron Goode, Joanna Taylor and Robin Taylor-Wilson

Project Management: Robin Taylor-Wilson

Post-Excavation Management: Jenny Proctor

CAD: Adrian Bailey and Hayley Baxter

Other Credits

Archaeometallurgical Material: Dr. Roderick Mackenzie

Biological Remains: Archaeological Services Durham University: Lorne Elliott (plant macrofossils), Louisa Gidney (bone), Charlotte Henderson and Janice Adams (sample processing); Palaeoecology Research Services: John Carrott (shell)

Roman Finds: Alex Croom (Tyne and Wear Museums)

Post-Roman Pottery: Jenny Vaughan (Northern Counties Archaeological Services)

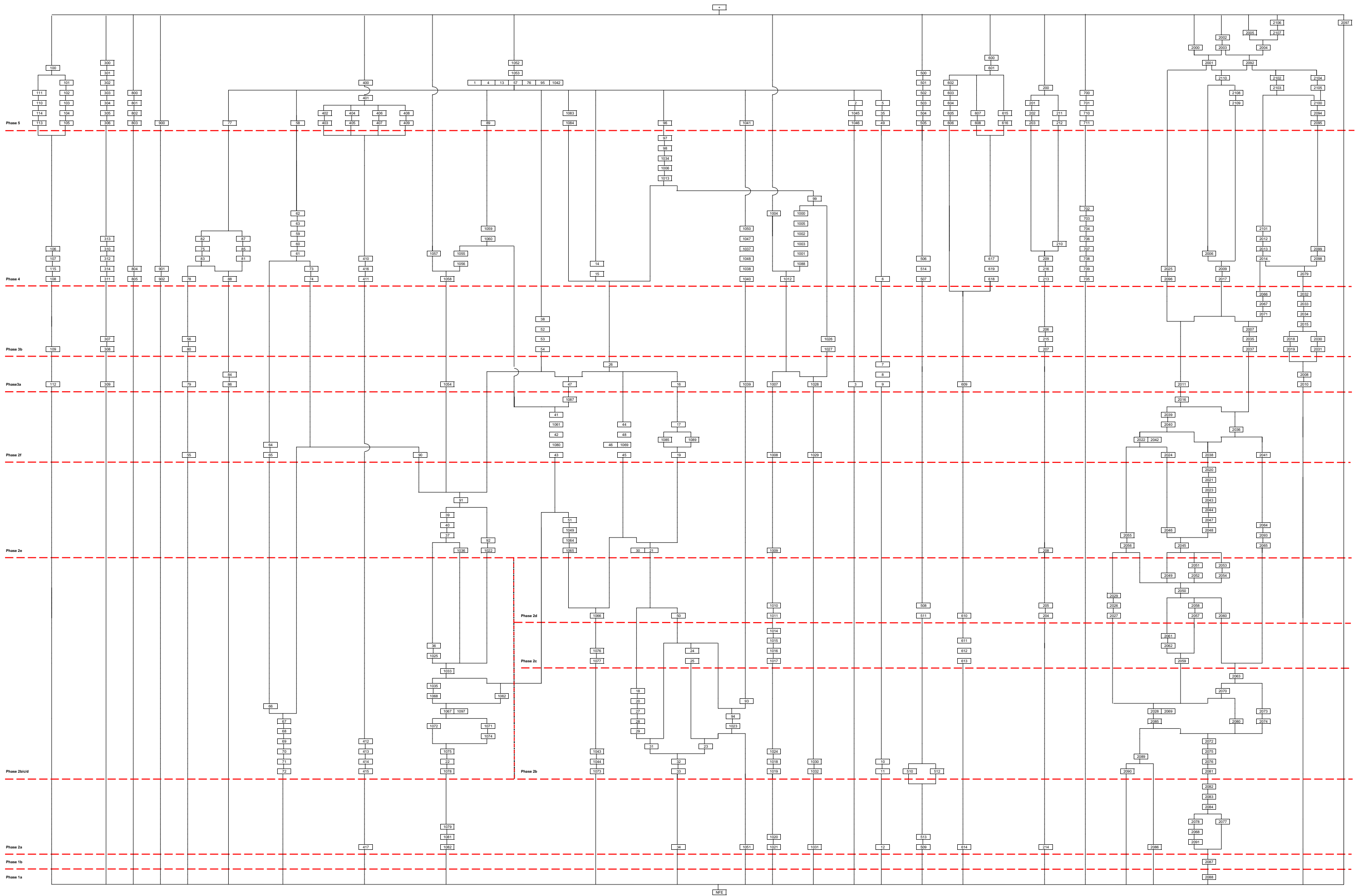
16. REFERENCES

- Annis, R., 2009. 'Newcastle-upon-Tyne: BEMCO site, Clavering Place', in Hodgson, N. (ed.), *Hadrian's Wall 1999-2009; a summary of excavation and research prepared for the Thirteenth Pilgrimage of Hadrian's Wall, 8-14 August 2009*, 85-87, Cumberland and Westmorland Antiquarian and Archaeological Society and the Society of Antiquaries of Newcastle-upon-Tyne.
- Bachmann, H.G., 1982. *The Identification of Slags from Archaeological Sites*, The Institute of Archaeology.
- Barford, P.M., 1996. 'Discussion', in May, J., *Dragonby: Report on Excavations at an Iron Age and Romano-British Settlement in North Lincolnshire*, Volume 1, Oxbow Monograph 61.
- Bidwell, P.T. and Snape, M., 2002. 'The History and Setting of the Roman Fort at Newcastle-upon-Tyne', Part II of *The Roman Fort at Newcastle-upon-Tyne*, Archaeologia Aeliana, Fifth Series, Volume XXXI, 251-283, The Society of Antiquaries of Newcastle-upon-Tyne, The City of Newcastle-upon-Tyne and Tyne and Wear Museums.
- Bidwell, P.T., 2009. 'Newcastle upon Tyne', in Symonds, M.F.A. and Mason, D.J.P. (eds.), Vol. 1, 71-73.
- Breeze, D.J. and Dobson, B., 2000. *Hadrian's Wall*, 4th edition, Penguin.
- Brown, D.H., 2007. *Archaeological Archives. A guide to best practice in creation, compilation transfer and curation*, Archaeological Archives Forum.
- Department of the Environment, 1990. *Planning Policy Guidance Note 16: 'Archaeology and Planning'*, HMSO.
- English Heritage, 1996. *Hadrian's Wall World Heritage Site Management Plan*, English Heritage.
- English Heritage, 2006. *Management of Research Projects in the Historic Environment*, English Heritage.
- Gidney, L.J., 2009. *Salving, Smitting and Smorning*, poster presented at the Association for Environmental Archaeology Conference September 2009, York.
- Harbottle, B., 1968. Excavations at the Carmelite Friary, Newcastle-upon-Tyne, 1965 and 1967, *Archaeologia Aeliana*, Series 4, XLVI, 161-223.
- Hodgson, N. (ed.), 2009. *Hadrian's Wall 1999-2009; a summary of excavation and research prepared for the Thirteenth Pilgrimage of Hadrian's Wall, 8-14 August 2009*, Cumberland and Westmorland Antiquarian and Archaeological Society and the Society of Antiquaries of Newcastle-upon-Tyne.
- Huntley, J.P. and Stallibrass, S., 1995. *Plant and vertebrate remains from archaeological sites in northern England: data reviews and future directions*, Research Report No. 4, Architectural and Archaeological Society of Durham and Northumberland.
- Institute for Archaeologists, 1994 (revised October 2008). *Standard and guidance for archaeological watching briefs*, IfA.
- Institute for Archaeologists, 1995 (revised October 2008). *Standard and guidance for archaeological excavation*, IfA.
- Institute for Archaeologists, forthcoming. *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, IfA.
- McDonnell, J.G., 2001. In Lane, A. and Campbell, E., *Dunadd, The Site Archive*, Cardiff Studies in Archaeology Specialist Report No. 19, Cardiff University.
- Merrifield, R., 1987. *The Archaeology of Ritual and Magic*, Batsford.
- Muncaster, W. and Macpherson, S., 1998. *Clavering Place, Newcastle-upon-Tyne. An Archaeological Evaluation*, Tyne and Wear Museums, unpublished.
- Petts, D. and Gerrard, C., 2006. *Shared Visions: North East Regional Research Framework for the Historical Environment*, County Durham Books.
- Pre-Construct Archaeology Limited, 2007. *An Archaeological Evaluation at 1-8 Westgate Road, Newcastle-upon-Tyne, Tyne and Wear*, unpublished.
- Pre-Construct Archaeology Limited, 2008. *Field Recording Manual*, unpublished.

- Pre-Construct Archaeology Limited, 2009a. *Project Design for Archaeological Investigations at 1-7 Westgate Road and Arches 23/24 Queens Lane, Newcastle-upon-Tyne, Tyne and Wear*, unpublished, PCA reference WEG08-09 ProjDesignv1.3 26Jan09.
- Pre-Construct Archaeology Limited, 2009b. *Project Design for Archaeological Investigations in Association with Drainage Installation at 1-7 Westgate Road and Arches 23/24 Queens Lane, Newcastle-upon-Tyne, Tyne and Wear*, unpublished, PCA reference WEG09 ProjDesignv1.5 26May09.
- Snape, M. and Bidwell, P.T., 2002. 'Excavations at Castle Garth, Newcastle-upon-Tyne, 1976-92 and 1995-96: the excavation of the Roman fort', Part I of *The Roman Fort at Newcastle-upon-Tyne*, Archaeologia Aeliana, Fifth Series, Volume XXXI, 1-250, The Society of Antiquaries of Newcastle-upon-Tyne, The city of Newcastle-upon-Tyne and Tyne and Wear Museums.
- Stace, C., 1997. *New Flora of the British Isles*, 2nd edition, Cambridge University Press.
- Symonds, M.F.A. and Mason, D.J.P. (eds.), 2009. *Frontiers of Knowledge. A Research Framework for Hadrian's Wall, Part of the Frontiers of the Roman Empire World Heritage Site. Vol. I, Resource Assessment and Vol. II, Agenda and Strategy*, English Heritage, Durham County Council and Durham University.
- United Kingdom Institute for Conservation, 1983. *Guidelines No. 2: Packaging and storage of freshly excavated artefacts from archaeological sites*, Archaeology Section of the UKIC.
- Walker, K., 1990. *Guidelines for the preparation of excavation archives for long-term storage*, United Kingdom Institute for Conservation.
- Watkinson, D. and Neal, V., 2001. *First Aid for Finds*, 3rd edition - revised, Rescue and Archaeology Section of the United Kingdom Institute for Conservation.

APPENDIX 1
STRATIGRAPHIC MATRIX

WEG 09: STRATIGRAPHIC MATRIX



APPENDIX 2
CONTEXT INDEX

WEG 09: CONTEXT INDEX

Context	Trench	Phase	Date	Type	Description
1	10	5	Modern	Surface	Dolomite ground surface
2	10	5	Modern	Layer	Dump/levelling layer
3	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
4	10	5	Modern	Surface	Dolomite ground surface
5	10	5	Modern	Layer	Dump/levelling layer
6	10	4	Post-medieval/early modern	Layer	Demolition/dump/levelling layer
7	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
8	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
9	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
10	10	2b	3rd century	Surface	Cobble surface
11	10	2b	3rd century	Layer	Dump/levelling layer
12	10	2a	Late 2nd/3rd century	Surface	Cobble surface
13	10	5	Modern	Surface	Dolomite ground surface
14	10	4	Post-medieval/early modern	Layer	Demolition/dump/levelling layer
15	10	4	Post-medieval/early modern	Layer	Demolition/dump/levelling layer
16	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
17	10	2f	3rd century	Fill	Infill between walls [1085] and [1089]
18	10	2b	3rd century	Layer	Dump/levelling layer
19	10	2f	3rd century	Cut	Construction cut for walls [1085] and [1089]
20	10	2b	3rd century	Layer	Accumulated/dump/levelling layer
21	10	2e	3rd century	Layer	Accumulated/dump/levelling layer
22	10	2b/c/d	3rd century	Layer	Make-up layer
23	10	2b	3rd century	Surface	Sandstone surface
24	10	2c	3rd century	Fill	Fill of beamslot/drain [25]
25	10	2c	3rd century	Cut	Beamslot/drain
26	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
27	10	2b	3rd century	Layer	Accumulated/dump/levelling layer
28	10	2b	3rd century	Layer	Accumulated/dump/levelling layer
29	10	2b	3rd century	Layer	Accumulated/dump/levelling layer
30	10	2e	3rd century	Layer	Accumulated/dump/levelling layer
31	10	2b	3rd century	Layer	Accumulated/dump/levelling layer
32	10	2b	3rd century	Layer	Accumulated/dump/levelling layer
33	10	2b	3rd century	Layer	Accumulated/dump/levelling layer
34	10	2a	Late 2nd/3rd century	Surface	Cobble surface
35	10	5	Modern	Fill	Backfill of construction cut [49]
36	10	2b/c/d	3rd century	Layer	Make-up layer
37	10	2e	3rd century	Layer/surface	Dump/levelling layer/beaten-earth surface
38	10	3b	Medieval	Fill	Fill of ditch [54]
39	10	2e	3rd century	Fill	Fill of pit [40] - contains structured deposit
40	10	2e	3rd century	Cut	Pit
41	10	2f	3rd century	Masonry	Wall
42	10	2f	3rd century	Fill	Part of foundation within construction cut [43]
43	10	2f	3rd century	Cut	Construction cut for wall [41]
44	10	2f	3rd century	Fill	Foundation within construction cut [45]
45	10	2f	3rd century	Cut	Construction cut for foundations [44], [46] & [48]
46	10	2f	3rd century	Fill	Foundation within construction cut [45]

WEG 09: CONTEXT INDEX

47	10	3a	Post-Roman/medieval	Layer	Demolition dump/levelling layer
48	10	2f	3rd century	Fill	Foundation within construction cut [45]
49	10	5	Modern	Cut	Service trench
50	10	2d	3rd century	Layer	Demolition dump/levelling layer
51	10	2e	3rd century	Layer	Dump/levelling layer
52	10	3b	Medieval	Fill	Fill of ditch [54]
53	10	3b	Medieval	Fill	Fill of ditch [54]
54	10	3b	Medieval	Cut	Ditch
55	10	2f	3rd century	Layer	Demolition dump/levelling layer
56	10	3b	Medieval	Fill	Fill of pit [80]
57	10	5	Modern	Surface	Dolomite ground surface
58	10	5	Modern	Layer	Dump/levelling layer
59	10	4	Post-medieval/early modern	Fill	Backfill of construction cut [61]
60	10	4	Post-medieval/early modern	Masonry	Culvert within construction cut [61]
61	10	4	Post-medieval/early modern	Cut	Construction cut for culvert [60]
62	10	4	Post-medieval/early modern	Fill	Fill of ?pit [63]
63	10	4	Post-medieval/early modern	Cut	Pit?
64	10	2f	3rd century	Surface	Beaten-earth surface
65	10	2f	3rd century	Surface	Beaten-earth surface
66	10	2b/c/d	3rd century	Layer	Make-up layer
67	10	2b/c/d	3rd century	Layer	Make-up layer
68	10	2b/c/d	3rd century	Layer	Make-up layer
69	10	2b/c/d	3rd century	Surface	Metalled surface
70	10	2b/c/d	3rd century	Layer	Make-up layer
71	10	2b/c/d	3rd century	Layer	Make-up layer
72	10	2b/c/d	3rd century	Surface	Metalled surface
73	10	4	Post-medieval/early modern	Masonry	Wall
74	10	4	Post-medieval/early modern	Cut	Construction cut for wall [73]
75	10	4	Post-medieval/early modern	Masonry	Culvert within construction cut [83]
76	10	5	Modern	Surface	Dolomite ground surface
77	10	5	Modern	Layer	Dump/levelling layer
78	10	4	Post-medieval/early modern	Layer	Dump/levelling layer
79	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
80	10	3b	Medieval	Cut	Pit
81	10	4	Post-medieval/early modern	Cut	Construction cut for wall [85]
82	10	4	Post-medieval/early modern	Fill	Backfill of [83]
83	10	4	Post-medieval/early modern	Cut	Construction cut for culvert [75]
84	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
85	10	4	Post-medieval/early modern	Masonry	Wall
86	10	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
87	10	4	Post-medieval/early modern	Layer	Dump/levelling layer
88	10	4	Post-medieval/early modern	Layer	Dump/levelling layer
89	10	5	Modern	Layer	Dump/levelling layer
90	10	2f	3rd century	Surface	Beaten-earth surface
91	10	2e	3rd century	Layer	Dump/levelling layer
92	10	2e	3rd century	Layer	Dump/levelling layer
93	10	2b	3rd century	Layer	Demolition dump/levelling layer
94	10	2b	3rd century	Layer	Demolition dump/levelling layer

WEG 09: CONTEXT INDEX

95	10	5	Modern	Surface	Dolomite ground surface
96	10	5	Modern	Layer	Dump/levelling layer
97	10	4	Post-medieval/early modern	Fill	Backfill of construction cut [1013]
98	10	4	Post-medieval/early modern	Fill	Foundation within construction cut [1013]
99	10	4	Post-medieval/early modern	Layer	Dump/levelling layer
100	1	5	Modern	Surface	Dolomite ground surface
101	1	5	Modern	Fill	Backfill of construction cut [102]
102	1	5	Modern	Cut	Service trench
103	1	5	Modern	Layer/fill	Dump/levelling layer
104	1	5	Modern	Fill	Backfill of service trench [105]
105	1	5	Modern	Cut	Service trench
106	1	4	Post-medieval/early modern	Layer	Dump/levelling layer
107	1	4	Post-medieval/early modern	Fill	Foundation within construction cut [108]
108	1	4	Post-medieval/early modern	Cut	Construction cut for foundation [115]
109	1	3b	Medieval	Surface	Cobble surface
110	1	5	Modern	Cut	Service trench
111	1	5	Modern	Fill	Backfill of service trench [110]
112	1	3a	Post-Roman/medieval	Layer	Dump/levelling layer
113	1	5	Modern	Cut	Construction cut for inspection chamber [114]
114	1	5	Modern	Masonry	Inspection chamber
115	1	4	Post-medieval/early modern	Masonry	Brick arch pier foundation
116-119	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
200	2	5	Modern	Surface	Dolomite ground surface
201	2	5	Modern	Layer	Dump/levelling layer
202	2	5	Modern	Fill	Backfill of service trench [203]
203	2	5	Modern	Cut	Service trench
204	2	2d	3rd century	Layer	Demolition/dump/levelling layer
205	2	2d	3rd century	Surface	Beaten-earth surface
206	2	3b	Medieval	Fill	Fill of pit [207]
207	2	3b	Medieval	Cut	Pit
208	2	2e	3rd century	Layer	Dump/levelling layer
209	2	4	Post-medieval/early modern	Fill	Backfill of construction cut [213]
210	2	4	Post-medieval/early modern	Surface	Sandstone surface
211	2	5	Modern	Fill	Backfill of service trench [212]
212	2	5	Modern	Cut	Service trench
213	2	4	Post-medieval/early modern	Cut	Construction cut for foundation [216]
214	2	2a	Late 2nd/3rd century	Surface	Beaten-earth surface
215	2	3b	Medieval	Fill	Fill of pit [207]
216	2	4	Post-medieval/early modern	Masonry	Brick arch pier foundation
217-299	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
300	3	5	Modern	Surface	Dolomite ground surface
301	3	5	Modern	Layer	Dump/levelling layer
302	3	5	Modern	Fill	Backfill of construction cut [303]
303	3	5	Modern	Cut	Service trench
304	3	5	Modern	Fill	Backfill of construction cut [306]
305	3	5	Modern	Masonry	Inspection chamber
306	3	5	Modern	Cut	Construction cut for inspection chamber [305]
307	3	3b	Medieval	Fill	Fill of pit [308]

WEG 09: CONTEXT INDEX

308	3	3b	Medieval	Cut	Pit
309	3	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
310	3	4	Post-medieval/early modern	Fill	Backfill of construction cut [311]
311	3	4	Post-medieval/early modern	Cut	Construction cut for foundation [314]
312	3	4	Post-medieval/early modern	Fill	Backfill of construction cut [311]
313	3	4	Post-medieval/early modern	Fill	Backfill of construction cut [311]
314	3	4	Post-medieval/early modern	Masonry	Brick arch pier foundation
315-399	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
400	4	5	Modern	Surface	Dolomite ground surface
401	4	5	Modern	Layer	Dump/levelling layer
402	4	5	Modern	Fill	Backfill of service trench [403]
403	4	5	Modern	Cut	Service trench
404	4	5	Modern	Fill	Backfill of service trench [405]
405	4	5	Modern	Cut	Service trench
406	4	5	Modern	Fill	Backfill of service trench [407]
407	4	5	Modern	Cut	Service trench
408	4	5	Modern	Fill	Backfill of service trench [409]
409	4	5	Modern	Cut	Service trench
410	4	4	Post-medieval/early modern	Fill	Backfill of construction cut [411]
411	4	4	Post-medieval/early modern	Cut	Construction cut for foundation [416]
412	4	2b/c/d	3rd century	Layer	Make-up layer
413	4	2b/c/d	3rd century	Layer	Make-up layer
414	4	2b/c/d	3rd century	Layer	Make-up layer
415	4	2b/c/d	3rd century	Layer	Make-up layer
416	4	4	Post-medieval/early modern	Masonry	Brick arch pier foundation
417	4	2a	Late 2nd/3rd century	Surface	Sandstone surface
418-499	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
500	5	5	Modern	Surface	Dolomite ground surface
501	5	5	Modern	Layer	Dump/levelling layer
502	5	5	Modern	Fill	Backfill of service trench [503]
503	5	5	Modern	Cut	Construction cut for services
504	5	5	Modern	Fill	Backfill of [505]
505	5	5	Modern	Cut	Service trench
506	5	4	Post-medieval/early modern	Fill	Backfill of construction cut [507]
507	5	4	Post-medieval/early modern	Cut	Construction cut for foundation [514]
508	5	2d	3rd century	Layer	Dump/levelling layer
509	5	2a	Late 2nd/3rd century	Masonry	Oven/furnace
510	5	2b	3rd century	Layer	Dump/levelling layer
511	5	2d	3rd century	Layer	Dump/levelling layer
512	5	2b	3rd century	Layer	Dump/levelling layer
513	5	2a	Late 2nd/3rd century	Fill	Fill of structure [509]
514	5	4	Post-medieval/early modern	Masonry	Brick arch pier foundation
515-599	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
600	6	5	Modern	Surface	Dolomite ground surface
601	6	5	Modern	Layer	Dump/levelling layer
602	6	5	Modern	Fill	Backfill of construction cut [606]
603	6	5	Modern	Masonry	Inspection chamber
604	6	5	Modern	Masonry	Concrete base of inspection chamber [603]

WEG 09: CONTEXT INDEX

605	6	5	Modern	Fill	Backfill of construction cut [606]
606	6	5	Modern	Cut	Construction cut for inspection chamber [603]
607	6	5	Modern	Fill	Backfill of service trench [608]
608	6	5	Modern	Cut	Service trench
609	6	3a	Post-Roman/medieval	Layer	Accumulated/developed soil
610	6	2d	3rd century	Surface	Sandstone surface
611	6	2c	3rd century	Fill	Fill of pit [612]
612	6	2c	3rd century	Cut	Pit
613	6	2c	3rd century	Surface	Beaten-earth surface
614	6	2a	Late 2nd/3rd century	Surface	Beaten-earth surface
615	6	5	Modern	Fill	Backfill of service trench [616]
616	6	5	Modern	Cut	Service trench
617	6	4	Post-medieval/early modern	Fill	Backfill of construction cut [618]
618	6	4	Post-medieval/early modern	Cut	Construction cut for foundation [619]
619	6	4	Post-medieval/early modern	Masonry	Brick arch pier foundation
620-699	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
700	7	5	Modern	Surface	Dolomite ground surface
701	7	5	Modern	Layer	Dump/levelling layer
702	7	4	Post-medieval/early modern	Layer	Dump/levelling layer
703	7	4	Post-medieval/early modern	Layer	Dump/levelling layer
704	7	4	Post-medieval/early modern	Layer	Dump/levelling layer
705	7	4	Post-medieval/early modern	Cut	Construction cut for foundation [709]
706	7	4	Post-medieval/early modern	Fill	Fill of pit [707]
707	7	4	Post-medieval/early modern	Cut	Pit
708	7	4	Post-medieval/early modern	Fill	Backfill of construction cut [705]
709	7	4	Post-medieval/early modern	Masonry	Brick arch pier foundation
710	7	5	Modern	Fill	Backfill of service trench [711]
711	7	5	Modern	Cut	Service trench
712-799	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
800	8	5	Modern	Surface	Dolomite ground surface
801	8	5	Modern	Layer	Dump/levelling layer
802	8	5	Modern	Fill	Fill of feature [803]
803	8	5	Modern	Cut	Service trench?
804	8	4	Post-medieval/early modern	Layer	Demolition dump/levelling layer
805	8	4	Post-medieval/early modern	Masonry	Wall
806-899	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
900	9	5	Modern	Surface	Dolomite ground surface
901	9	4	Post-medieval/early modern	Layer	Dump/levelling layer
902	9	4	Post-medieval/early modern	Masonry	Sandstone arch pier foundation
903-999	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
1000	10	4	Post-medieval/early modern	Fill	Backfill of construction cut [1012]
1001	10	4	Post-medieval/early modern	Masonry	Stone capping to walls [1002] & [1003]
1002	10	4	Post-medieval/early modern	Masonry	Wall
1003	10	4	Post-medieval/early modern	Masonry	Wall
1004	10	4	Post-medieval/early modern	Fill	Infill between walls [1002] & [1003]
1005	10	4	Post-medieval/early modern	Masonry	Wall
1006	10	4	Post-medieval/early modern	Masonry	Concrete base
1007	10	3a	Post-Roman/medieval	Layer	Dump/levelling layer

WEG 09: CONTEXT INDEX

1008	10	2f	3rd century	Surface	Beaten earth surface
1009	10	2e	3rd century	Layer	Dump/levelling layer
1010	10	2d	3rd century	Surface	Beaten earth surface
1011	10	2d	3rd century	Layer	Dump/levelling layer
1012	10	4	Post-medieval/early modern	Cut	Construction cut for walls [1002] & [1003]
1013	10	4	Post-medieval/early modern	Cut	Construction cut for brick foundation [1034]
1014	10	2c	3rd century	Fill	Fill of culvert/drain [1015]
1015	10	2c	3rd century	Masonry	Culvert/drain
1016	10	2c	3rd century	Cut	Construction cut for culvert/drain [1015]
1017	10	2c	3rd century	Surface	Beaten earth surface
1018	10	2b	3rd century	Surface	Beaten earth surface
1019	10	2b	3rd century	Layer	Dump/levelling layer
1020	10	2a	Late 2nd/3rd century	Surface	Beaten earth surface
1021	10	2a	Late 2nd/3rd century	Layer	Dump/levelling layer
1022	10	2e	3rd century	Layer	Dump/levelling layer
1023	10	2b	3rd century	Layer	Demolition dump/levelling layer
1024	10	2b	3rd century	Layer	Dump/levelling layer
1025	10	2b/c/d	3rd century	Layer	Make-up layer
1026	10	3b	Medieval	Fill	Fill of pit [1027]
1027	10	3b	Medieval	Cut	Pit
1028	10	3a	Post-Roman/medieval	Layer	Dump/levelling layer
1029	10	2f	3rd century	Surface	Beaten earth surface
1030	10	2b	3rd century	Layer	Dump/levelling layer
1031	10	2a	Late 2nd/3rd century	Masonry	Wall
1032	10	2b	3rd century	Layer	Dump/levelling layer
1033	10	2b/c/d	3rd century	Layer	Make-up layer
1034	10	4	Post-medieval/early modern	Masonry	Brick foundation
1035	10	2b/c/d	3rd century	Surface	Metalled surface
1036	10	2e	3rd century	Layer	Make-up layer
1037	10	4	Post-medieval/early modern	Fill	Infill of culvert [1048]
1038	10	4	Post-medieval/early modern	Cut	Construction cut for culvert [1048]
1039	10	3a	Post-Roman/medieval	Layer	Demolition dump/levelling layer
1040	10	4	Post-medieval/early modern	Layer	Dump/levelling layer
1041	10	5	Modern	Layer	Dump/levelling layer
1042	10	5	Modern	Surface	Dolomite ground surface
1043	10	2b	3rd century	Layer	Dump/levelling layer
1044	10	2b	3rd century	Layer	Dump/levelling layer
1045	10	5	Modern	Fill	Backfill of service trench [1046]
1046	10	5	Modern	Cut	Service trench
1047	10	4	Post-medieval/early modern	Fill	Backfill of construction cut [1038]
1048	10	4	Post-medieval/early modern	Masonry	Culvert
1049	10	2e	3rd century	Layer	Dump/levelling layer
1050	10	4	Post-medieval/early modern	Fill	Backfill of construction cut [1038]
1051	10	2a	Late 2nd/3rd century	Surface	Beaten earth surface
1052	10	5	Modern	Fill	Backfill of service trench [1053]
1053	10	5	Modern	Cut	Service trench
1054	10	3a	Post-Roman/medieval	Layer	Dump/levelling layer
1055	10	4	Post-medieval/early modern	Fill	Backfill of construction cut [1058]

WEG 09: CONTEXT INDEX

1056	10	4	Post-medieval/early modern	Masonry	Culvert
1057	10	4	Post-medieval/early modern	Fill	Infill of culvert [1056]
1058	10	4	Post-medieval/early modern	Cut	Construction cut for culvert [1056]
1059	10	4	Post-medieval/early modern	Fill	Backfill of construction cut [1060]
1060	10	4	Post-medieval/early modern	Cut	Construction cut for foundation
1061	10	2f	3rd century	Fill	Part of foundation within construction cut [43]
1062	10	2b/c/d	3rd century	Layer	Make-up layer
1063	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
1064	10	2e	3rd century	Fill	Fill of pit [1065]
1065	10	2e	3rd century	Cut	Pit
1066	10	2d	3rd century	Layer	Dump/levelling layer
1067	10	2b/c/d	3rd century	Layer	Make-up layer
1068	10	2b/c/d	3rd century	Layer	Make-up layer
1069	10	2f	3rd century	Fill	Foundation within construction cut [45]
1070	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
1071	10	2b/c/d	3rd century	Surface	Metalled surface
1072	10	2b/c/d	3rd century	Surface	Metalled surface
1073	10	2b	3rd century	Surface	Beaten earth surface
1074	10	2b/c/d	3rd century	Layer	Make-up layer
1075	10	2b/c/d	3rd century	Layer	Make-up layer
1076	10	2c	3rd century	Fill	Fill of drain/culvert [1077]
1077	10	2c	3rd century	Cut	Drain/culvert
1078	10	2b/c/d	3rd century	Layer	Make-up layer
1079	10	2a	Late 2nd/3rd century	Surface	Sandstone surface
1080	10	2f	3rd century	Fill	Part of foundation within construction cut [43]
1081	10	2a	Late 2nd/3rd century	Layer	Make-up layer
1082	10	2a	Late 2nd/3rd century	Layer	Make-up layer
1083	10	5	Modern	Fill	Backfill of service trench [1084]
1084	10	5	Modern	Cut	Service trench
1085	10	2f	3rd century	Masonry	Wall
1086	VOID	VOID	VOID	VOID	VOID
1087	10	2f	3rd century	Masonry	Wall core
1088	VOID	VOID	VOID	VOID	VOID
1089	10	2f	3rd century	Masonry	Wall
1090-1096	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
1097	10	2b/c/d	3rd century	Layer	Make-up layer
1098-1999	UNUSED	UNUSED	UNUSED	UNUSED	UNUSED
2000	11	5	Modern	Surface	Concrete surface
2001	11	5	Modern	Layer	Dump/levelling layer
2002	11	5	Modern	Surface	Edging stone
2003	11	5	Modern	Cut	Construction cut for stone [2002]
2004	11	5	Modern	Surface	Stone surface
2005	11	5	Modern	Surface	Tarmac surface
2006	11	4	Post-medieval/early modern	Layer	Dump/levelling layer
2007	11	3b	Medieval	Surface	Lime mortar surface
2008	11	3a	Post-Roman/medieval	Layer	Dump/levelling layer
2009	11	4	Post-medieval/early modern	Fill	Fill of robber cut [2017]

WEG 09: CONTEXT INDEX

2010	11	3a	Post-Roman/medieval	Layer	Dump/levelling layer
2011	11	3a	Post-Roman/medieval	Layer	Dump/levelling layer
2012	11	4	Post-medieval/early modern	Fill	Lower backfill of construction cut [2014]
2013	11	4	Post-medieval/early modern	Masonry	Culvert
2014	11	4	Post-medieval/early modern	Cut	Construction cut for culvert [2013]
2015	11	3b	Medieval	Layer	Dump/levelling layer
2016	11	2f	3rd/early 4th c	Surface	Cobble surface
2017	11	4	Post-medieval/early modern	Cut	Robber cut
2018	11	3b	Medieval	Fill	Fill of beamslot/gully [2019]
2019	11	3b	Medieval	Cut	Beamslot/gully
2020	11	2e	3rd century	Fill	Fill of feature [2021]
2021	11	2e	3rd century	Cut	Impression of oven/hearth
2022	11	2f	3rd century	Layer	Dump/levelling layer
2023	11	2e	3rd century	Layer	Dump/levelling layer
2024	11	2f	3rd century	Surface	Sandstone surface
2025	11	4	Post-medieval/early modern	Fill	Backfill of construction cut [2096]
2026	11	2d	3rd century	Layer	Dump/levelling layer
2027	11	2d	3rd century	Layer	Dump/levelling layer
2028	11	2b	3rd century	Layer	Demolition dump/levelling layer
2029	11	2d	3rd century	Surface	Beaten earth surface
2030	11	3b	Medieval	Cut	Gully
2031	11	3b	Medieval	Cut	Beamslot/gully
2032	11	3b	Medieval	Fill	Fill of ditch [2034]
2033	11	3b	Medieval	Fill	Fill of ditch [2034]
2034	11	3b	Medieval	Cut	Ditch
2035	11	3b	Medieval	Surface	Metalled surface
2036	11	2f	3rd century	Layer	Dump/levelling layer
2037	11	3b	Medieval	Layer	Dump/levelling layer
2038	11	2f	3rd century	Surface	Metalled surface
2039	11	2f	3rd century	Fill	Fill of robber cut? [2040]
2040	11	2f	3rd century	Cut	Robber cut?
2041	11	2f	3rd century	Layer	Dump/levelling layer
2042	11	2f	3rd century	Layer	Dump/levelling layer
2043	11	2e	3rd century	Fill	Fill of robber cut [2044]
2044	11	2e	3rd century	Cut	Robber cut
2045	11	2e	3rd century	Layer	Dump/levelling layer
2046	11	2e	3rd century	Layer	Dump/levelling layer
2047	11	2e	3rd century	Masonry	Wall
2048	11	2e	3rd century	Cut	Construction cut for wall [2047]
2049	11	2d	3rd century	Surface	Beaten earth surface
2050	11	2d	3rd century	Layer	Dump/levelling layer
2051	11	2d	3rd century	Fill	Fill of stakehole [2052]
2052	11	2d	3rd century	Cut	Stakehole
2053	11	2d	3rd century	Fill	Fill of stakehole [2054]
2054	11	2d	3rd century	Cut	Stakehole
2055	11	2e	3rd century	Fill	Fill of robber cut [2056]
2056	11	2e	3rd century	Cut	Robber cut
2057	11	2d	3rd century	Surface	Metalled surface

WEG 09: CONTEXT INDEX

2058	11	2d	3rd century	Layer	Dump/levelling layer
2059	11	2c	3rd century	Surface	Beaten earth surface
2060	11	2d	3rd century	Surface	Sandstone surface
2061	11	2c	3rd century	Fill	Fill of beamslot/drain [2062]
2062	11	2c	3rd century	Cut	Beamslot/drain
2063	11	2b	3rd century	Layer	Dump/levelling layer
2064	11	2e	3rd century	Fill	Fill of structure [2065]
2065	11	2e	3rd century	Cut	Construction cut for structure [2093]
2066	11	3b	Medieval	Fill	Fill of ditch [2071]
2067	11	3b	Medieval	Fill	Fill of ditch [2071]
2068	11	2a	Late 2nd/3rd century	Fill	Clay foundation of wall [2078]
2069	11	2b	3rd century	Layer	Demolition dump/levelling layer
2070	11	2b	3rd century	Layer	Dump/levelling layer
2071	11	3b	Medieval	Cut	Ditch
2072	11	2b	3rd century	Layer	Dump/levelling layer
2073	11	2b	3rd century	Fill	Fill of pit [2074]
2074	11	2b	3rd century	Cut	Pit
2075	11	2b	3rd century	Surface	Beaten earth surface
2076	11	2b	3rd century	Layer	Dump/levelling layer
2077	11	2a	Late 2nd/3rd century	Masonry	Wall
2078	11	2a	Late 2nd/3rd century	Masonry	Wall
2079	11	4	Post-medieval/early modern	Layer	Dump/levelling layer
2080	11	2b	3rd century	Layer	Dump/levelling layer
2081	11	2b	3rd century	Layer	Dump/levelling layer
2082	11	2a	Late 2nd/3rd century	Surface	Beaten earth surface
2083	11	2a	Late 2nd/3rd century	Surface	Sandstone surface
2084	11	2a	Late 2nd/3rd century	Layer	Dump/levelling layer
2085	11	2b	3rd century	Layer	Demolition dump/levelling layer
2086	11	2a	Late 2nd/3rd century	Masonry	Wall
2087	11	1b	Pre-Roman	Layer	Sub-soil
2088	11	1a	Natural	Layer	Natural clay
2089	11	2b	3rd century	Layer	Dump/levelling layer
2090	11	2b	3rd century	Layer	Dump/levelling layer
2091	11	2a	Late 2nd/3rd century	Cut	Construction cut for wall [2078]
2092	11	5	Modern	Layer	Dump/levelling layer
2093	11	2e	3rd century	Structure	Lining of construction cut [2065]
2094	11	5	Modern	Fill	Backfill of service trench [2095]
2095	11	5	Modern	Cut	Service trench
2096	11	4	Post-medieval/early modern	Cut	Construction cut for foundation (back fill [2025])
2097	12 & 13	5	Modern	Layer	All overburden during external watching brief
2098	11	4	Post-medieval/early modern	Layer	Dump/levelling layer
2099	11	4	Post-medieval/early modern	Layer	Dump/levelling layer (lens)
2100	11	5	Modern	Layer	Dump/levelling layer
2101	11	4	Post-medieval/early modern	Fill	Upper backfill of construction cut [2014]
2102	11	5	Modern	Fill	Backfill of service trench [2103]
2103	11	5	Modern	Cut	Service trench
2104	11	5	Modern	Fill	Backfill of feature [2105]
2105	11	5	Modern	Cut	Enabling trench?

WEG 09: CONTEXT INDEX

2106	11	5	Modern	Fill	Backfill of service trench [2107]
2107	11	5	Modern	Cut	Service trench
2108	11	5	Modern	Fill	Backfill of service trench [2109]
2109	11	5	Modern	Cut	Service trench
2110	11	5	Modern	Layer	Dump/levelling layer

APPENDIX 3
PLATES



Plate 1. Wall [509], Trench 5, looking west (scale 0.5m)



Plate 2. Surface [10], Trench 10, looking east (scale 0.5m)



Plate 3. Surface [1079], Trench 10, looking east
(scale 0.5m)



Plate 4. Surface [1079], Trench 10, looking west
(scale 0.5m)



Plate 5. Surface [72], Trench 10, looking southwest (scale 0.5m)



Plate 6. Make-up layer [1033], Trench 10, looking west (scale 0.5m)



Plate 7. Section 21 (easternmost portion), Trench 10, south facing (scale 1.0m)



Plate 8. Clay surface [2082] and walls [2077] & [2078], Trench 11, looking north (scale 1.0m)



Plate 9. Detail of clay surface [2082], Trench 11, looking north (scale 1.0m)



Plate 10. Surface [2016], Trench 11, looking north (scale 1.0m)



Plate 11. Surface [2038], with quern SF104, Trench 11, looking west (scale 1.0m)



Plate 12. 'Robber' cut [2017], Trench 11, looking north (scale 1.0m)



Plate 13. Detail of wall [2077], Trench 11, looking south (scale 1.0m)



Plate 14. Detail of wall [2078], Trench 11, looking west (scale 1.0m)



Plate 15. Mortar patching [2007], Trench 11, looking north (scale 1.0m)



Plate 16. Section 38, Trench 11, west facing, looking south-east (scale 1.0m)



Plate 17. Surface [2083] and walls [2077] & [2078], Trench 11, looking east (scale 1.0m)



Plate 18. Working shot, Trench 11, looking north