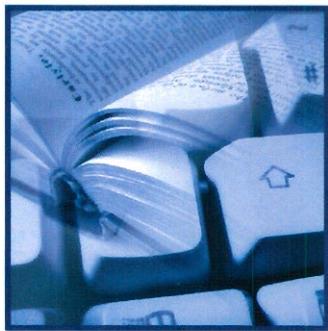


Broadmead Expansion Bristol



**Archaeological Evaluation Report
Tollgate House, Main Scheme**



Oxford Archaeology

November 2005

Client: The Bristol Alliance

Issue N^o: 1

OA Job N^o: 2473

Planning Ref N^o: 02/02929/P/C

NGR: ST 59667357

Client Name: The Bristol Alliance

Client Ref No:

Document Title: Broadmead Expansion, Main Scheme, Tollgate House,
(Trenches 11-13)

Document Type: Evaluation

Issue Number: 1

National Grid Reference: ST 5966 7357
Planning Reference: Appl. No. 02/02929/P/C

OA Job Number: 2473
Site Code: BRSMG:2004/49
Invoice Code: BRBMEV
Receiving Museum: Bristol City Museum
Museum Accession No: BRSMG; 2004/49

Prepared by: Jon Hiller
Position: Senior Project Manager
Date: 31st October 2005

Checked by: A Norton
Position: Senior Project Manager
Date: 7th November 2005

Approved by: N Shepherd
Position: Head of Fieldwork
Date: 9th November 2005

Document File Location X:\BRBMEV_Bristol\TOLLGATE Ho EV REP.doc
Graphics File Location Servergo:/oaupubs1_lthru'H*BRSMS04/49*BRSMEV*B
ristolBroadmeads*jm/mw*21.10.05

Illustrated by Julia Moxham

Signed.....



Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior-written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

Oxford Archaeology

© Oxford Archaeological Unit Ltd 2005

Janus House

Osney Mead

Oxford OX2 0ES

t: (0044) 01865 263800

f: (0044) 01865 793496

e: info@oxfordarch.co.uk

w: www.oxfordarch.co.uk

Broadmead Expansion, Bristol Main Scheme - Tollgate House (Trenches 11-13)

NGR ST 5966 7357

ARCHAEOLOGICAL EVALUATION REPORT

CONTENTS

| | |
|--|----|
| Summary..... | 2 |
| 1 Introduction..... | 2 |
| 1.1 Location and scope of work..... | 2 |
| 1.2 Geology and topography..... | 3 |
| 1.3 Archaeological and historical background | 3 |
| 2 Evaluation Aims | 5 |
| 3 Evaluation Methodology..... | 6 |
| 3.1 Scope of fieldwork..... | 6 |
| 3.2 Fieldwork methods and recording | 6 |
| 3.3 Finds..... | 6 |
| 4 Results: Descriptions | 6 |
| 4.1 Description of deposits | 6 |
| 4.2 Finds..... | 9 |
| 4.3 Palaeo-environmental remains..... | 14 |
| 5 Discussion and Interpretation | 14 |
| 5.1 Reliability of field investigation | 14 |
| 5.2 Overall interpretation..... | 14 |
| 5.3 Conclusions..... | 15 |
| Appendix 1 Archaeological Context Inventory..... | 16 |
| Appendix 2 Finds Data/Spot Dating..... | 18 |
| Appendix 3 Bibliography and Map Sources..... | 22 |
| Appendix 4 Summary of Site Details | 23 |

LIST OF FIGURES

- Fig. 1 Site location
- Fig. 2 Trench location
- Fig. 3 Trench 11, plan
- Fig. 4 Trench 11, sections
- Fig. 5 Trench 12, plan and sections
- Fig. 6 Trench 13, plan and section
- Fig. 7 Trench 13, section

SUMMARY

In September 2005, Oxford Archaeology (OA) carried out a field evaluation at Tollgate House, Bristol (NGR ST 5966 7357) on behalf of the Broadmead Alliance, as part of the Broadmead Expansion Main Scheme. Three trenches measuring 5 m by 3 m were opened to the east of Dale Street, the site of properties in the Victorian period and early part of the 20th century.

The evaluation revealed layers of probable alluvial clay formed in the medieval period, overlain by deposits of either occupation material or imported soil/rubble; material used to raise the ground levels above the medieval levels. The remains of structures of probable 18th century date, including a sandstone wall and a well were discovered at the south end of Dale Street. Further north, a sandstone and brick wall of probable late 18th century date was revealed. Here a closely dated group of clay pipes suggest that activity on this part of the site dates at least from the middle of the 18th century.

The remains of Victorian brick walls were found in all three trenches towards the top of the sequence, following substantial raising and consolidation of ground levels. These structures represent the remains of outhouses and ancillary structures at the rear of the terraced properties.

1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 In September 2005, Oxford Archaeology (OA) carried out a field evaluation at Tollgate House, Bristol (NGR ST 5966 7357). The evaluation formed part of the Broadmead Expansion (Main Scheme) and was a continuation of the evaluation undertaken in 2004 and the earlier part of 2005. These works have been reported (OA 2005).
- 1.1.2 The current evaluation was undertaken on behalf of the Bristol Alliance in respect of a planning application for the Broadmead Expansion (Planning Application No. 02/02929/P/C). A project brief was set by and a Written Scheme of Investigation (OA 2003a) was agreed with the City Archaeologist for Bristol City Council.
- 1.1.3 The Broadmead Expansion comprises redevelopment of the site to provide retail, residential, and leisure facilities, as well as access arrangements and alteration to the highway network.
- 1.1.4 The Broadmead Expansion redevelopment area has been divided into six separate Archaeological Areas to better reference the works carried out during the evaluation. Trenches 11, 12 and 13 were opened in car parks to the east of these principal Archaeological Areas, east of Dale Street and west of Tollgate House itself (Fig. 1).

1.2 Geology and topography

- 1.2.1 The Tollgate House site lies on Triassic Keuper marl at c 10 m OD. The underlying soil type is alluvium. The river Frome passes to south of the site.
- 1.2.2 At the time of the evaluation the land around Tollgate House was level and comprised areas of car parking, with a few modern buildings.

1.3 Archaeological and historical background

Previous Work

- 1.3.1 A detailed account of the historic development of the Main Scheme Area can be found in the desk-based studies previously completed (Morton 1999; BaRAS 2000). The results from these, together with some further research into the foundations of existing buildings, were set out in the Environmental Statement (OA 2003b, Section 6, Archaeological Assessment) and summarised in the previous evaluation report (OA 2005). The following is therefore a short summary of the archaeological background relevant to Tollgate House and its immediate environs. A map regression exercise places the area of the test trenches under discussion here in context.

Background

- 1.3.2 The trenches forming this stage of the evaluation were opened to the rear of properties that once fronted Dale Street, with the Vinegar Works owned by Purnell and Panter & Co. to the east of these on Houlton Street. This area of Bristol was open fields in the medieval and earlier periods.
- 1.3.3 Development of the area currently occupied by Tollgate House and the associated car parks began in the 18th century, and continued into the 19th century. The Tollgate House building is modern and has piled foundations. The extent of post-WWII damage is limited, as much of the area was left open for car parking.
- 1.3.4 The area to the immediate north of the Tollgate Multi-storey Car Park once contained the early post-medieval lodge known as *the Whistry*. Some of this site lies under the modern Newfoundland Road and it originally comprised buildings set in a large paddock with areas of gardens.
- 1.3.5 Dale Street appears to have been a typical street of Victorian terraced houses with small back yards - a public house stood on the corner of Dale Street and Newfoundland Road to the north. Dale Street extends from Newfoundland Road to the north to Wellington Street to the south, where the river Frome and a so-called 'Back Ditch' were located.
- 1.3.6 A north-south aligned water channel, adjoining the upper Frome, appears to have run along the eastern side of the site.

Site Development from historic map regression

- 1.3.7 Tollgate House is situated on the site of the former Vinegar Works on Houlton Street (or Hollen/Holton Street) - the test pits were opened to the west at the rear of properties that once fronted Dale Street. Analysis of historic maps shows how the area around what became Dale Street developed - early maps are either not detailed enough or do not extend to cover this part of the Broadmead Development.
- 1.3.8 Smith's map of 1568 shows the eastward arterial roads extending away from the city centre and the outlying areas of Bristol are open spaces or fields. Little has changed by the time of Hoefnagle's plan of 1581 and Speede (1610) concentrates on the city centre around the area of the castle.
- 1.3.9 Millerd's plan of 1673 shows that urban sprawl is underway east of the castle. North-east of the castle are open fields including Earl's Mead and the lodge known as *the Whistry* is mapped in a paddock. The buildings are in the top left of the paddock and adjacent is a garden. New-found-land-lane is to the north.
- 1.3.10 On a further Millerd map of 1715 the area where Hill and Dale Street will be built is depicted as an open paddock and *the Whistry* is as drawn in 1673. Houses are shown extending further along the south side of New-found-land Lane. East of *the Whistry*, a building is shown just south of New-found Land Lane, but away from the street frontage.
- 1.3.11 Rocque's map of 1742 is the most revealing of the early plans. The line of the later Dale Street on the east side of the plot of land forming *the Whistry* appears as a lane on this map. The lane is annotated with "Beggar's Well" and what later becomes Houlton Lane is known as New-found-land-lane. Adjacent to the lane, the fields appear now to be formal gardens or orchards with paths, in between small paddocks.
- 1.3.12 By the time of Donne's map of 1773, the orchards appear to have been replaced by buildings on the plot east of what will become Dale Street. These buildings occupy the north end of the plot. Holton Lane is shown - *the Whistry* is not - suggesting that it had gone by this time. The types of buildings are unknown. Building blocks are also shown at the south end of the plot. By 1826 (Donne), the area west of Holton St. is a patchwork of small lanes with blocks of houses in between. Holton Street is clearly marked but the street names to the west are not named.
- 1.3.13 Plumley & Ashmead's 1828 map appears to suggest that the patchwork of lanes etc has gone and the plot is open. *The Whistry* may partially survive here or has been built upon. To the east - a lane or brook runs north-south and east of this, the land running up to Holton Street is built upon. Dale Street comes into being and is developed for typical Victorian terraced housing after 1828, as Plumley & Ashmead's plan clearly shows an open area between Houlton Street to the east and East Street to the west.

1.3.14 Rapkin's plan of the [early] 1850s shows Dale Street for the first time. The plan shows the street with houses on the east side and a large probable ditch, presumably that which was once the Lane with the Beggar's Well and then became a lane or brook as depicted on other maps. Further east there are the buildings fronting Houlton St. (a.k.a. Hollen Street).

1.3.15 An undated ?1870s map shows Dale Street with terraced houses and back yards backing onto the site of the Vinegar Works. The ditch/brook has gone and the back yards of the terraced houses have been built over the line of the possible ditch.

1.3.16 By the time of OS 1st Edition Map (1883-4), the Vinegar Works, stores and St Clement's Church form the community surrounding Dale Street, which remained more or less unchanged until the time of the OS map of 1949-50. By this time the properties at the north end of Dale Street on the east side have gone (post-war urban renewal?), but the Vinegar Works is still on the site.

1.3.17 At the time of the evaluation, Tollgate House occupied the site of the Vinegar Works and surrounding areas are derelict or car parks.

2 · EVALUATION AIMS

General

2.1.1 The aims of the Tollgate House trenching were as for the Main Scheme overall, with some site specific targeted aims. These were:

2.1.2 To determine the location, extent, date, character, and state of preservation of any archaeological, geo-archaeological and palaeoenvironmental remains surviving within the Main Scheme. Attention was given to remains of all periods, including evidence for past environments, with provision for environmental sampling included.

2.1.3 The evaluation aimed to inform arrangements, so far as is reasonably practicable, for the preservation *in situ* of important archaeological remains, particularly those of national significance, and to assess to what extent development proposals may damage archaeological deposits and features.

2.1.4 A further general aim of the investigations was to make the results available.

Aims Specific to the Main Scheme/Tollgate House Area

2.1.5 To determine the potential for, and the nature of, medieval settlement and associated industrial processes, with particular reference to the area adjacent to the possible mill leat in the area known as *the Whistry* in the north-eastern part of site (Tollgate area), and the area between the river Frome and the 'Back Ditch'.

2.1.6 To examine the potential for pre-medieval activity within the alluvial floodplain, with specific reference to prehistoric activity and to identify the presence of 18th-century housing and riverside activity.

2.1.7 To examine the palaeoenvironmental potential of the site for evidence relating to changing environmental conditions, land-use, early industries and the changing courses of the river Frome channel and tributaries.

3 EVALUATION METHODOLOGY

3.1 Scope of fieldwork

3.1.1 The Tollgate House evaluation consisted of three trenches measuring 5 m in length by 3 m wide (Fig. 2).

3.1.2 The overburden was removed under close archaeological supervision by a 360° mechanical excavator fitted with a toothless bucket.

3.2 Fieldwork methods and recording

3.2.1 The trenches were cleaned by hand and the revealed features were sampled to determine their extent and nature, and to retrieve finds and environmental samples.

3.2.2 All archaeological features were planned and where excavated their sections drawn at scales of 1:20. All features were photographed using colour slide and black and white print film. Recording followed procedures detailed in the *OA Fieldwork Manual* (ed. D Wilkinson, 1992).

3.3 Finds

3.3.1 Finds were recovered by hand during the course of the excavation and bagged by context. Finds of special interest were given a unique small find number.

4 RESULTS: DESCRIPTIONS

4.1 Description of deposits

Trench 11

4.1.1 The trench (Fig. 3 plan, Fig. 4, sections) was located within the car park at the south end of Dale Street, just north of Wellington Road. The trench was excavated to a maximum depth of 2.8 m (7.2 m OD). Natural was not reached in the trench.

4.1.2 The earliest deposit was a 0.32 m thick layer of brown clay (1125), possibly alluvial, overlain by successive layers of silty soil containing mortar, ash and brick fragments (1124, 1123, 1122 and then 1109). These layers appear to be demolition deposits or material imported to raise the ground level above the clay soil beneath.

4.1.3 Layer 1109 was cut by a circular feature (1129) that was 1.24 m deep and had a diameter of 1.05 m. The feature contained a dry sandstone well (1128) that was backfilled with black silt and stones (1130), but no dating material. The remains of a possible wall (1127) of sandstone build were observed in the trench section, set into layer 1109, and the structure may have been contemporary with the well. Structure

1127 was abutted by a layer of reddish silt (1121), overlain by a layer of brown silt (1126) to a depth of 0.5 m, possibly occupation soil.

4.1.4 Contexts 1130 and 1126 were overlain by a 0.41 m thick layer of black silt (1107), dated by pottery to c 1720-1760, that was covered by a 0.42 m thick layer of crushed mortar (1108). It contained pottery and clay pipes of types current from the mid-18th to the mid-19th centuries. Layers of superimposed clay and silt followed in turn (1106, 1113 then 1105). Layer 1105 contained pottery dated c 1820-1850 and was overlain by a further sequence of clay, silt and rubble layers (1104, 1112, 1111=1117). Layer 1104 contained pottery dated to c 1780-1830 and layers 1111 and 1112 contained pottery dated to c 1820-1850. The sequence continued with layer 1110 sealed by 1103, a layer of silt, debris including pottery dated to c 1875-1925, brick pieces and ceramic drainage pipes.

4.1.5 Layer 1103 was cut by a 1.55 m wide flat-based trench (1116) filled by a structure comprising squared limestone blocks bonded with a lime mortar (1118). The structure formed a foundation wall, cut and overlain by the insertion of a brick/stone and tile structure containing ceramic drainage pipes (1119) bonded with cement. The drainage structure, presumably for an outdoor toilet, was overlain by the remains of a brick wall (1120) in header and stretcher build with cement mortar; presumably part of an outhouse/toilet.

4.1.6 The remains of structure 1120 were sealed by demolition layers 1115 then 1102, comprising brick/mortar debris; these were sealed by make up for the present car park (1101) and its tarmac surface (1100).

Trench 12

4.1.7 The trench (Fig. 5, plan and sections) was located within a car park south-west of Tollgate House, about half way along the line of Dale Street. The trench was excavated to a maximum depth of 3.32 m (6.7 m OD). Natural was not reached in the trench.

4.1.8 The earliest deposit in the trench was 0.21 m thick layer of brown silty clay (1222, not shown), probably alluvial, overlain by a succession of layers of dark brown silt, clinker, mortar and brick fragments (1221, 1220, 1219, 1218, 1212, 1211 and lastly 1207). These deposits had a combined thickness of 2.4 m, and represented a raising of ground levels. Layer 1221 contained pottery of types current from 1750-1850; layer 1220 contained 18th century pottery and layer 1218 contained pottery dated from 1720-1780. Layer 1212 contained pottery ranging in date from c 1750 to 1825 and clay pipe pieces of 17th century date (probably residual).

4.1.9 Layer 1207 was cut by 1.3 m wide and 1 m deep east-west aligned foundation trench (1214). It contained a fill of mixed mortar/brick and ash (1215) beneath a foundation for a wall (1216), consisting of sandstone rubble blocks randomly constructed and bonded with a grey mortar. Adjacent to the wall and cutting layer 1207 was a shallow

flat-based feature - perhaps a pit (1209) - that was 0.2 m deep and 0.9 m in diameter. It was filled with clay and stone and brick rubble (1208).

4.1.10 The remains of wall 1216 and fill 1208 were overlain by a 0.45 m thick layer of brown silty soil with brick and tile pieces (1206) - possibly a garden or yard soil. Layer 1206 contained pottery dated from c 1780-1830 and residual clay pipe pieces of late 18th century date. A small pit (1210) filled by brick, stone, tile and mortared stone rubble (1204/1205) cut the soil (not shown). An east-west aligned brick wall (1217) that was 1.3 m wide and some 0.32 m high also overlay layer 1206. The wall was built over the line of earlier wall 1216 and was abutted by a thin layer of mortar (1213). Above lay a contemporary garden soil (1203), sealed by demolition material 1202, then make-up (1201) for the car park tarmac surface (1200).

Trench 13

4.1.11 The trench (Fig. 6, plan and section; Fig. 7, section) was opened in a car park north-west of Tollgate House and south of Newfoundland Street. The trench was excavated to a maximum depth of 2.75 m (7.58 m OD). Natural was not reached in the trench.

4.1.12 The earliest deposits in the trench were over 1.6 m of brown silty clay layers (1321-1324), probably alluvial, layer 1321 contained a substantial quantity of clay pipes and pottery of types current from 1750-1825. Clay pipes from this layer include a group securely dated to 1733-1754, suggesting a date for formation of deposit 1321 of c 1750.

4.1.13 This layer was overlain by a succession of layers of dark brown silt mixed with roof slate, mortar and charcoal (1317, 1316, 1319, 1315 and lastly 1318) containing pottery dated from c 1720-1780. Layer 1317 contained clay pipe pieces securely dated to the period 1733-1754. These deposits had a combined thickness of 1.7 m and represented either a raising of ground levels or a succession of occupation soil horizons/demolitions layers.

4.1.14 Layer 1318 was cut by a 1.7 m deep and 1.8 m wide trench (1320) containing a sandstone and brick wall (1310) aligned north-south. The wall was abutted by a layer of brick fragments and clay (1314) including pottery dated from c 1750-1850, in turn overlain by a further layer of crushed brick (1313) and then a layer of humic/organic soil (1312) - probably garden soil.

4.1.15 Layer 1312 was cut by a foundation trench (1311) filled with mortar (1309) that was the base for two walls (1304 and 1305). Fill 1309 contained pottery dated c 1680-1780 and contemporary clay pipe pieces, suggesting that the walls were probably built towards the end of the 18th century. These walls were brick-built and aligned WNW-ESE. Wall 1304 was abutted by another brick wall (1307) that was aligned NW-SE.

4.1.16 A brick surface (1306) lay between the walls and was overlain by a further wall (1303) - again aligned WNW-ESE - and extending parallel to walls 1304/1305. Wall

1303 was abutted by garden soil 1308, which was 0.48 m thick. Traces of the robbing of wall 1303 were noted. All of the wall remnants and layer 1308 were overlain by a layer of demolition material (1302), which was in turn overlain by make-up (1301) for the car park tarmac (1300).

4.2 Finds

The Pottery by John Cotter, OA

4.2.1 The assemblage comprises a total of 186 sherds of pottery weighing exactly 13 kg. Much of this survives as large fresh sherds. The industrial wares in particular, because of their robustness and larger vessel size, have sometimes survived as unusually large sherds. Except for a single residual late medieval sherd, all of the pottery is of 18th and 19th century date, although the presence of one or two 17th-century clay pipes within the pipe assemblage should not be overlooked.

4.2.2 All the pottery was examined and spot-dated during the present assessment stage. For each context the total pottery sherd count and weight were recorded on an Excel spreadsheet, followed by the context spot-date which is the date-bracket during which the latest pottery types in the context are estimated to have been produced or were in general circulation. Comments on the presence of datable types were also recorded, usually with mention of vessel form (jugs, bowls etc.) and any other attributes worthy of note (e.g. decoration etc.). Spot-dates, in this instance, are derived solely from the pottery. A separate list of clay pipe spot-dates was also compiled (see below). There is good broad agreement between the pottery and clay pipe dates. As with earlier evaluations on this site, the pottery from the site can be divided into two broad groups - ordinary domestic pottery and industrial pottery.

4.2.3 *Domestic Wares:* The domestic pottery comes from several sources and includes table wares (or fine wares) and a few coarser kitchen wares. Many of the table wares present are types normally attributed to Staffordshire, but many of these types were copied by Bristol potters and it can be almost impossible to distinguish between them. Typical 18th-century Staffordshire-type wares present on the site include large globular handled cups or 'porringers' in trailed and combed slipware and also press-moulded dishes in combed slipware. Forms in Staffordshire-type white stoneware (c 1720-1780) include dishes, sugar bowls, a teapot and a mug. There are several vessels in tin-glazed earthenware, either plain or with painted decoration, including dishes or plates, Chinese-style tea bowls, sugar bowls and chamber pots. In southern England the main sources of tin-glazed earthenware were London, Bristol and nearby Brislington. The designs and blue background tint of many of the tin-glazed wares from this site suggest a Bristol or Brislington source. There is a single example of a Donyatt sgraffito-decorated dish from central Somerset.

4.2.4 *Later Staffordshire-type products:* These comprise the industrialised fine wares or table wares, e.g. plates, dishes and bowls etc. The earlier element of this, dating to c 1775-1830 includes late Cream wares and related Pearlware vessels. The later element comprises Staffordshire-type refined white earthenwares with a pure white

fabric and often transfer-printed decoration ('Willow Pattern' etc.). These date mostly after c 1825 and span the remainder of the 19th century.

4.2.5 *Kitchen wares:* These include fragments from two or three vessels in North Devon gravel-tempered ware (c 1550-1750), in this case probably late examples including a handled jar or cooking pot. A few dishes and bowls in local glazed red earthenware were also present along with one or two pieces of modern stoneware. At least six contexts on the site (1218, 1314, 1316, 1317, 1318, 1319), accounting for nearly half the total pottery assemblage (88 sherds, 5711g), have table wares suggesting a broad mid-18th-century dating - most probably within c 1720-60. One of these contexts (1318) contains a part of a tin-glazed dish with a fragmentary inscription date of '(17)35'. This, and the clay pipe dating, suggests a deposition date not far-off c 1750 for much of the 18th-century material from this site.

4.2.6 *Industrial Wares:* The second group of pottery comprises the industrial wares - pottery produced for an industrial function. In this case sugar-making pottery. Sugar-making pottery has been identified from a previous evaluation on this site and is described in some detail in that assessment report. The earlier evaluation produced substantial parts of the bases of around half a dozen robust red earthenware vessels identified as syrup-collecting jars, but curiously no rims. One of the bases was identified as a possible waster testifying to local production. A few smallish pieces of conical sugar-cone moulds were also identified. The present evaluation has produced a significantly broader sample of sugar-making pottery including both rims and bases of syrup-collecting jars and many large pieces of sugar-loaf moulds including both apex and rim pieces. The sugar-loaf moulds have been smoothed or shaved internally and several have a characteristic internal coating of thin streaky white slip to facilitate the removal of the sugar loaves when set. Sugar-making pottery, including references to Bristol finds, and sugar-making technology is discussed in detail by Brooks (Brooks 1983). All the sugar-making pottery is in red earthenware. Some of the moulds are in a more refined fabric resembling flowerpot. By themselves this sort of industrial pottery is not closely datable although a general date of c 1750-1850 has been suggested partly on the basis of their association with more datable table wares.

4.2.7 The 18th-century table wares from the site (together with the clay pipes) suggest a deposition date not far off c 1750 for much of the material from this site, with lesser deposition of material up to the end of the 19th century. Although of some interest the table wares and local coarse wares are not in themselves remarkable but they are useful for their relatively close dating and in particular for the dating they give, by association, to the less-datable industrial wares.

4.2.8 In conclusion, the industrial wares from this site would appear to re-confirm the likelihood of a sugar-refining industry on or near the site during the 18th and first half of the 19th century. Of course it cannot be ruled-out that this material was imported to the site from elsewhere in the city. More detailed documentary work might shed some light on this possibility. The sugar-making pottery was probably linked to Bristol's maritime connections with sugar plantations in the West Indies.

The sugar-making pottery contains a much wider range of elements and more complete forms than that found in previous evaluations on the site. Should funding become available it is recommended that this should receive more detailed attention and selective publication.

Ceramic building material by Cynthia Poole, OA

4.2.9 A small quantity of material totalling 19 fragments weighing 3,623 g was recovered from 4 contexts. Three fabrics were identified and were all similar though some distinctions could be made. It is unclear whether the different fabrics represent products of different tileries or variations in the clay source of a single production centre.

4.2.10 The fabrics are similar to ones known from Bath (Bath type series fabrics 13 and 14 Betts 1999) and they are likely to be produced by brick and tile works in Somerset. Pantiles were produced at Bridgwater until the 1890s (Murless 1991, 9).

1: Brown. Fine fabric with red clay pellets 1-5 mm, white calcium carbonate speckling and rare white shell <1 mm. Moulding sand: coarse red (Fe stained) & clear quartz coarse moulding sand with distinct white speckling from frequent shell (fine sand size - 3 mm). One fragment contains a large limestone grit 10 mm.

2: Pinkish brown. Sandy clay with common small -medium quartz & red iron oxide & occasional ferruginous sandstone grit up to 6 mm

3.1: Pink/red laminated clay/cream bands with red ferruginous clay inclusions up to 1 mm.

3.2: Yellowish red laminated clay with paler buff bands and sandy lenses containing red ferruginous clay inclusions 1-7mm.

4.2.11 *Forms:* All the material consisted of fragments of pantile. A group of eight joining fragments from (1221) formed a large part of a single tile measuring 240 mm wide and more than this in length. The nib at the top of the tile survived complete, as did another nib on one of the other fragments from the same context.

4.2.12 Written records indicate that pantile were produced from about 1680 and continued in use up until the 20th century. The character of the material is consistent with the 18th-early 19th century date for the site indicated by the pottery.

4.2.13 Two pieces of possible kiln material were recovered. A small fragment of fine white clay mixed with frequent sand was possibly the lining of a clay pipe kiln. A larger block of white-cream calcareous sandy clay, which had a flat surface covered with grey and black concretions may have been part of a kiln wall for some industrial purpose.

The Animal bone by Fay Worley, OA

4.2.14 Three 19th century contexts contained five fragments of animal bone, all of which was in good condition with none burnt. Fragments from contexts 1218 and 1317 had suffered recent breaks. No gnawing was noted. The majority of fragments exhibited butchery marks including fine knife cuts and heavier knife chops.

4.2.15 Context 1218 contained three animal bones weighing a total of 160 g. The anterior portion of a left cattle mandible was identified with four heavy chops on the lingual face of the diastema, the fourth of the chops had severed the bone. A near complete right sheep/or goat mandible was the only fragment not butchered. The majority of the teeth were present and indicated that the animal died between 3 and 5 years old. A large mammal (probably horse or cattle) right pubis was also identified. The ilium had been chopped off through the acetabulum. The pubic synthesis was unfused.

4.2.16 Context 1221 contained a single adult rabbit left femur weighing 2 g. The femur had fine knife cuts on the proximal and distal posterior diaphysis. These were probably inflicted during disarticulation. Context 1317 included a single sheep or goat right ilium weighing 19 g. the ilium had fine transverse knife cuts on the lateral diaphysis, probably from meat removal.

Clay Tobacco Pipes by John Cotter, OA

4.2.17 A total of 114 fragments of clay pipe weighing 742g was recovered (see table for details). These have been spot-dated and given a basic catalogue. The catalogue records, per context, the quantity of stem, bowl and mouth fragments, the overall sherd count, weight, and comments on condition and any makers' marks or decoration present. The collection is not particularly large or impressive but it does contain an unusually high proportion of identical pipe bowls bearing makers' marks. Many of the pipes appear never to have been used.

4.2.18 At least two deformed pipe bowls and several other burnt stems confirm the suspicion that the assemblage includes pipe-making waste. One pipe bowl contained what appeared to be scraps and shavings of pipe-making waste and at least one stem fragment was encrusted or embedded in a coarse white pipe clay material. It is quite likely that this represents a tiny scrap of actual pipe kiln muffle or superstructure. Other scraps may be present among the ceramic building materials (see Appendix 2).

4.2.19 Around 39 individual pipes are represented by complete bowls, of which there are many, or by fragments. The typology of the pipe bowls suggests the assemblage comprises only 17th and 18th-century pipes. Three pipe bowls date to c1660-80 and are the only definite evidence amongst the ceramic assemblages of 17th-century activity. One of these has an 'RN' mark on the heel which can probably be identified as that of Richard Nunney of Bristol (active 1655-1713) or his son Robert who was apprenticed in 1676. All the remaining pipe bowls date to the 18th century.

4.2.20 Context 1321 alone produced a minimum of 31 pipe bowls, some of which appear to be wasters. Others, undamaged but apparently unused, may also be wasters. Of the marked examples six bowls bear the incuse initials 'WF' on the back of the bowl (a Bristol tradition). This mark, illustrated by Oswald, is probably to be identified with William Foord active 1733-54 (Oswald 1975, fig. 9.14). One bowl differs in having the initials 'WF' stamped in relief within a circle or roundel on the side of the bowl (*ibid.*, fig. 9.15).

4.2.21 Six smaller and therefore probably earlier bowls in the same context have the name 'R. Tippet' stamped in relief within a circle on the side of the bowl. This is probably to be identified with the maker Robert Tippett III active 1713-20. One other pipe, from context 1317, with the incuse initials 'CH' stamped on the back of the bowl, is probably by the maker Charles Hicks, active 1721-46. These datable types, along with the tin-glazed dish fragment dated 1735, suggest most of the deposition took place after c 1733 and perhaps closer to c 1750.

4.2.22 Ordinarily, pipe-making waste on a site would suggest pipe-making on or near the same site. As with the industrial (sugar-making) pottery on the site, however, one cannot rule-out the possibility that the material (or much of it) could have been brought to the site from elsewhere in the city. Again, further documentary work may shed some light on this matter.

The Glass by Dr Hugh Willmott, University of Sheffield

4.2.23 A small assemblage of glass consisting of 8 fragments from a minimum of 6 vessels or windows was recovered. All is post-medieval in date and stable, requiring no further specialist conservation or treatment.

4.2.24 The assemblage dates entirely to the late 17th and 18th centuries, there being no later material. A number of different utilitarian vessel types are present, including phials from 1218 and 1317, window glass from 1109 and 1218 and a single fragment of wine bottle from 1218. The only tableware present is a portion of base from a clear ribbed flask from 1206, but unfortunately this is too fragmented to reconstruct further.

4.2.25 Although the glass dates to potentially interesting phases, the assemblage is too small for any meaningful contextual analysis. Likewise, it is too fragmented for any more accurate reconstruction of the vessel types. It is therefore recommended that no further study or reporting is undertaken on the material and only a copy of this assessment need be included in the site archive.

Table 1: Glass by context

| Context | No Frags | Description | Date |
|---------|----------|-------------------|---|
| 1109 | 1 | Window glass | 17 th century |
| 1206 | 1 | Ribbed flask? | Late 17 th -early 18 th century |
| 1218 | 2 | Window | 18 th century |
| | 2 | Cylindrical phial | 18 th century |
| | 1 | Wine bottle | Early 18 th century |
| 1317 | 1 | Cylindrical phial | Late 18 th century |

Iron Object by Leigh Allen, OA

4.2.26 A single iron object was recovered from the archaeological investigations at the Broadmead Expansion, Bristol. The object from context 1109 is very corroded but is probably a large nail.

4.3 Palaeo-environmental remains

4.3.1 Alluvial layers at the base of the sequence were sampled during previous evaluation work to the west of the present areas. No further sampling of like deposits was carried out this time as the deposits had proved to be environmentally sterile.

5 DISCUSSION AND INTERPRETATION

5.1 Reliability of field investigation

5.1.1 The trenches were small but were opened in areas previously mapped, so that the later deposits and structures were easily interpreted. The trenches did not establish the depth of the natural geology in this area of the development area, while the full depth of medieval soil and alluvium is likewise unknown.

5.1.2 A wider area would need to be opened in order to investigate below the substantial build-up of post-medieval material across the site here and to elucidate the nature of the earliest deposits/structures identified.

5.2 Overall interpretation

5.2.1 None of the trenches revealed natural. Alluvial type clay layers at the base of the trenches appear to represent the medieval/early post-medieval soil layers in the fields as depicted on the earliest maps (e.g. Millerd, 1673 and John Rocque, 1742).

Trench 11

5.2.2 Trench 11 revealed the remains of sandstone structures including part of a wall and a well. Deposits accumulating immediately after these structures date to the period 1720-1780 based on the pottery evidence and clay pipes, which date no later than the 18th century. Structures are depicted in this area on Donne's map of Bristol (dated 1826) but not on his map of the town of 1773, nor on Plumley and Ashmead's plan of 1828, so it is likely that these structures are of late 18th century date and representative of early urban expansion here - possibly 'cottage industry' type dwellings.

5.2.3 These structures appear to have been short lived and demolished by the early to middle part of the 19th century. Layers of material were imported to raise the ground levels and consolidate the ground prior to another phase of construction. Trench 11 revealed a wall and waste water pipe system, presumably part of an exterior toilet/wash-house associated with Victorian terraced properties fronting Dale Street.

Trench 12

5.2.4 Trench 12 revealed a lengthy sequence of apparently imported layers of material to consolidate and raise ground levels above the medieval horizons. Pottery dates from this process suggest that this occurred here in the early 19th century, prior to the construction of a wall associated with Victorian terraced properties fronting Dale

Street. Garden soils and a further wall indicates activity at the rear of the properties in the middle of the 19th century.

Trench 13

5.2.5 The earliest deposit in Trench 13 was securely dated by clay pipe finds to the period 1733-54, including possible waster pieces. There is a possibility therefore that nearby was a building associated with clay pipe production in this period. Millerd's plan of 1715 shows a building in this general area and Rocque depicts the area as covered by formal gardens by 1742, so activity on the site appears to be confirmed in the middle of the 18th century by the presence of the clay pipes. Thereafter a lengthy sequence of soil deposits accumulated or was deposited - these may be genuine occupation layers, with pottery and clay pipe dated in the middle to later part of the 18th century.

5.2.6 The partial remains of a sandstone wall, perhaps dating to the end of the 18th century was overlain by a layer of material including pottery of types current between 1750-1850, possibly demolition debris. Walls of early to mid-19th century date were constructed, with associated brick paving - the layout suggests an alleyway and this could be the arrangement depicted on the 1884 1st Edition Ordnance Survey, in between housing and a public house.

5.3 Conclusions

5.3.1 Mid-late 18th century activity and structures were confirmed along the later line of Dale Street at the north and south ends of the present road. The large quantity of clay pipe remains, including possible wasters is of local interest here (area of Trench 13).

5.3.2 All of the glass from the evaluation dates to the 18th century, and is further evidence of occupation of this area at that time.

5.3.3 The apparent short-lived nature of the late 18th century structures could be a reflection of the effects of town planning in the early Victorian period, with the formalised laying out of terraced streets.

5.3.4 The finds of Victorian structures in all three trenches confirm the map evidence of the period. The finds assemblage, especially the pottery, suggest that historically this area of Bristol was associated with industrial activities.

5.3.5 The evaluation has demonstrated that overall the land levels here have risen by around 2.5 m since the medieval period.

5.3.6 No evidence for the N-S aligned tributary of the Frome was found.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

| Trench | Ctxt No | Type | Width (m) | Thick. (m) | Comment |
|--------|---------|----------------|-----------|------------|--|
| 11 | | | | | |
| | 1100 | Layer | - | 0.08 | Tarmac |
| | 1101 | Layer | - | 0.06 | Tarmac make-up |
| | 1102 | Layer | - | 0.2 | Rubble/brick demolition |
| | 1103 | Layer | - | 0.32 | Silt/rubble |
| | 1104 | Layer | - | 0.23 | Ash layer |
| | 1105 | Layer | - | 0.38 | Clay layer, willow pattern |
| | 1106 | Layer | - | 0.23 | Clay |
| | 1107 | Layer | - | 0.41 | Black silt layer |
| | 1108 | Layer | - | 0.42 | Mortar layer |
| | 1109 | Layer | - | 0.38 | Brick rubble demolition |
| | 1110 | Layer | - | 0.13 | Re-deposited nat; bricks |
| | 1111 | Layer | - | 0.72 | Silt/clay/slates/brick |
| | 1112 | Layer | - | 0.21 | Silt/clay |
| | 1113 | Layer | - | 0.48 | Silt/clay |
| | 1115 | Fill | - | 0.96 | Backfill of 1116 |
| | 1116 | Cut | 1.55 | 0.96 | Construction trench for walls 1118, 1119 |
| | 1117 | Layer | - | 1.2 | same as 1111 |
| | 1118 | Structure | 0.5+ | 0.5+ | Limestone wall foundation - yard wall |
| | 1119 | Structure | 0.36 | 0.24 | Ceramic pipe and surround |
| | 1120 | Structure | 0.56 | 0.46 | Brick wall - outhouse/toilet wall |
| | 1121 | Layer | - | 0.08 | reddish silt |
| | 1122 | Layer | - | 0.8 | Rubble/bricks |
| | 1123 | Layer | - | 0.19 | reddish silt |
| | 1124 | Layer | - | 0.18 | mortar/ash layer |
| | 1125 | Layer | - | 0.32 | Clay layer |
| | 1126 | Layer | - | 0.5 | Silt layer |
| | 1127 | Structure | 0.92 | 0.7 | Wall?, east side |
| | 1128 | Structure/well | 1.24 | 1.05 | Grey and reddish sandstone well, dry stone build |
| | 1129 | Cut | 1.24 | 1.05 | Cut for well 1128 |

| Trench | Ctxt No | Type | Width (m) | Thick. (m) | Comment |
|--------|---------|-----------|-----------|------------|----------------------------|
| | 1130 | Fill | - | - | Fill of well 1129 |
| 12 | | | | | |
| | 1200 | Layer | - | 0.15 | Tarmac |
| | 1201 | Layer | - | 0.32 | Foundation for 1200 |
| | 1202 | Layer | - | 0.1 | Tarmac |
| | 1203 | Layer | - | 0.28 | garden soil |
| | 1204 | Layer | - | 0.07 | Mortar/bricks |
| | 1205 | Layer | - | 0.34 | Mortar/etc demolition |
| | 1206 | Layer | - | 0.45 | Garden/yard soil |
| | 1207 | Layer | - | 0.07 | Soil layer |
| | 1208 | Fill | 0.92 | 0.2 | Fill of pit |
| | 1209 | Cut | 0.92 | 0.2 | Pit |
| | 1210 | Cut | 1.92 | 0.32 | Pit, ?wall cut |
| | 1211 | Layer | - | 0.3 | Mortar/brick demolition |
| | 1212 | Layer | - | 0.2 | Clay |
| | 1213 | Layer | - | 0.12 | Mortar layer |
| | 1214 | Cut | 1.3 | 1.0 | wall foundation cut |
| | 1215 | Fill | - | 0.39 | Ashy fill in 1214 |
| | 1216 | Structure | - | - | Mortar remnant of wall |
| | 1217 | Structure | 1.32 | 0.32 | E-W wall over wall 1216 |
| | 1218 | Layer | - | 0.34 | Building debris |
| | 1219 | Layer | - | 0.2 | levelling layer |
| | 1220 | Layer | - | 0.7 | mortar/brick etc |
| | 1221 | Layer | - | 0.2 | Levelling layer |
| | 1222 | Layer | - | 0.21 | Levelling layer |
| | 1300 | Layer | - | 0.1 | Tarmac |
| | 1301 | Layer | - | 0.2 | levelling for tarmac |
| | 1302 | Layer | - | 0.45 | Demolition layer |
| | 1303 | Structure | 0.24 | 0.44 | WNW/ESE aligned brick wall |
| | 1304 | Structure | 0.26 | 0.54 | WNW/ESE aligned brick wall |
| | 1305 | Structure | 0.24 | 0.52 | WNW/ESE aligned brick wall |
| | 1306 | Surface | 0.94 | 0.1 | Brick floor with 1305/1304 |
| | 1307 | Structure | - | 0.24 | N-S brick wall |

| Trench | Ctx No | Type | Width (m) | Thickness (m) | Comment |
|--------|--------|-----------|-----------|---------------|------------------------|
| | 1308 | Layer | - | 0.48 | Soil layer |
| | 1309 | fill | - | 0.36 | In 1311 |
| | 1310 | Structure | 1.84 | 1.7 | sandstone/brick wall |
| | 1311 | Cut | 1.26 | 0.46 | Cut for wall 1309 |
| | 1312 | Layer | - | 0.06 | clay layer |
| | 1313 | Layer | - | 0.5 | Demolition material |
| | 1314 | Layer | - | 0.34 | Demol/levelling |
| | 1315 | Layer | - | 0.42 | Demolition/roof slates |
| | 1316 | Layer | - | 0.46 | Former topsoil layer |
| | 1317 | Layer | - | 0.62 | Demolition layer |
| | 1318 | Layer | - | 0.9 | Demolition layer |
| | 1319 | Layer | - | 0.22 | Occupation soil |
| | 1320 | Cut | - | 1.72 | Cut for wall 1310 |
| | 1321 | Layer | - | - | occupation/pit deposit |
| | 1322 | Layer | - | 0.18 | levelling |
| | 1323 | Layer | - | 0.3 | Clay/silt |
| | 1324 | Layer | - | 0.6+ | Alluvial clay |
| | 1325 | deleted | | | |

APPENDIX 2 FINDS DATA/SPOT DATING

Table A2.1 Pottery table by context and Fabric

| Context | Spot-date | Sherds | Weight | Comments |
|---------|---------------|--------|--------|--|
| 0 | c1700-1750/75 | 3 | 205 | 2x small sherds Westerwald stoneware. 1x large frag Staffs-type (or local?) trailed slipware dish profile yellow on brown background) spiral or hoop dec on int wall |
| 1103 | c1875-1900/25 | 12 | 167 | Staffs-type LPM14 white earthenwares incl plain white plate with 'Made in England' mark. Blue transfer-printed Pearlware. Mod stoneware flagon sherd |
| 1104 | c1780-1830 | 2 | 11 | Bs hand-painted Pearlware. Staffs-type scratch-blue footing cup base - mid 18C (latter marked 1109 in error?) |
| 1105 | c1820-50? | 2 | 22 | Late ?Pearlware teacup with blue transfer pastoral scene - or a later Staffs LPM14-type with accidental blue tint |
| 1107 | c1720-1780 | 1 | 10 | Poss c1720-60? Staffs white stoneware - delicate tankard/mug base with handle terminal |

| Context | Spot-date | Sherds | Weight | Comments |
|---------|----------------|--------|--------|---|
| 1108 | c1750-1850? | 10 | 2457 | Nothing closely datable. Complete base oversired PMRE (post-med red earthenware) small drinking jug with lustrous reduced dark greenish-brown glaze. Frags min 3 dense PMRE sugar moulds incl apex rim with int white slip and 2x basal rims - streaky white slip at diagonal to throwing lines - PHOTO? 1x dense PMRE large sugar refining jar footring base |
| 1111 | c1820-50? | 2 | 135 | Pearlware cup rim similar to that in 1105. Plain jar/jug base in N Devon gravel-tempered ware - 18C? |
| 1112 | c1820-50? | 2 | 13 | Late ?Pearlware dish with blue transfer Chinese scene - or a later Staffs LPM14-type with accidental blue tint |
| 1206 | c1780-1800/30 | 18 | 711 | Hand-paint Pearlware square teapot rim. Late Creamware moulded plate rim. Staffs white stoneware & combed slipware. 2x Donyatt-type sgraffito dish rims (1 to ref coll). Profile ?local/Donyatt 'dog dish' with int brown glaze. Scrap tin-glazed earthenware (TGE) polychrome porringer handle & TGE wall tile scrap. 3x frags (1 vess) dense red c'ware sugar mould incl plain rim - all v smoothed int |
| 1212 | c1750-1800/25? | 6 | 758 | 1x bs Staffs combed slipware dish. Frags from 3 separate sugar moulds incl heavy flattened beaded rim type with int white slip. Another small beaded rim either mould or flowerpot. 1 mould bs shaved/smoothed int |
| 1218 | c1720-1780 | 16 | 1077 | Poss c1720-60? Plain-type Staffs white stoneware dish rim. TGE incl blue painted blue-tint dish rim. Staffs combed slipware incl cup & dish. 1x Westerwald stoneware ?jug bs c1675-1750 with floral medallion. Glazed PMRE. 4x frags sugar mould dense PMRE (min 3 moulds incl 2 rims with int white slip) |
| 1220 | 18C? | 0 | 0 | Not pot - pantiles removed to CBM |
| 1221 | c1750-1850? | 21 | 1950 | Poss c1775/1800-1850 on character of glazed pot - but nothing v datable. 2x rims from wide bowls with int brown/black glaze - thick droplets on rim, late-looking fabric and ext moulding on one. Frags of 4-5 separate sugar moulds incl complete apex of one and part apex of another. Basal rims from min 2 moulds - large pieces - mostly with int streaky white slip. Nearly all in dense PMRE flowerpot-type fabric. ILLUSTRATIONS? |
| 1309 | c1680-1780 | 7 | 97 | 1 vess. Rim/body from porringer in Staffs-type combed slipware with trailed zigzag & dot frieze on neck |
| 1314 | c1750-1850? | 13 | 3118 | Nothing closely datable. sugar-refining pottery only. Frags min 3 dense PMRE sugar moulds incl basal rims - 2 ext beaded (prob JOINS 1212) incl int streaky white slip. 1 basal rim/wall sherd v large - ILLUS? Rims from 2 separate sugar refining jars & thick pad bases from 2 separate sugar refining jars. ILLUSTRATIONS? Some sherds with rusty post-deposition discolouration. |

| Context | Spot-date | Shards | Weight | Comments |
|--------------|----------------|------------|--------------|--|
| 1316 | c1720-1780 | 21 | 435 | Poss c1720-60? Mainly domestic pot. Fresh incl teapot spout Staffs white stoneware. 3-4 vess Staffs-type slipware incl combed porringer & dish, also dish with slip-trailed concentric lozenge dec. 2x iron-streak glazed yellowish e-ware. TGE incl dish/bowl rim & 2 small blue-painted bss. 3x bss & base N. Devon gravel-temp small jar/jug (v coarse). 3x smallish sugar mould frags - 2 with white slip - 1 v narrow diam - dark grey - poss waster? |
| 1317 | c1720-1780 | 22 | 553 | Poss c1720-60? Domestic pot only. Fresh. Incl profile Staffs white stoneware sugarbowl with broad decorative band of milling/rouletting. ?Bristol fine pale grey stoneware tankard with ext iron slip & int white slip (pre-1750?). Staffs-type slipwares incl min 2 combed slip dishes (rims), large frag combed slip porringer (rim). Also Staffs slip cup/porringer base with allover ext dark brown slip & trailed ext guilloche. TGE min 3 vess incl dish rim with guilloche frieze, deep ?sugar bowl with spray-like flowers, plain white chamberpot rim. 1x N Devon gravel-temp jar base. Broad mid-18C date for context v likely |
| 1318 | 1735-1780 | 7 | 214 | Prob 1735-60? Base TGE dish with fragmentary date '[17]35' within frond-like roundel. Frags 2 other TGE vess incl sugarbowl footring & deep dish rim. Near profile Staffs-type combed slipware porringer with stylized tulip frieze on rim |
| 1319 | c1720-1760 | 9 | 314 | Frags 4x TGE vess incl 2 delicate teabowls - 1 with Chinese-style blue-painted dec, the other with polychrome floral dec. Plain chamberpot handle/rim. Lower 2/3 yellowish e-ware tankard with iron-streaked glaze & reeded central band. Rim N Devon gravel-temp jar with rod-section handle - heavy ext sooting |
| 1321 | c1750-1800/25? | 5 | 254 | 3x sherds Staffs-type combed slipware cups (2 vess). Footring base of small sugar-refining jar in flowerpot-like PMRE (?c1750+). 1x rim prob late med green-glazed off-whiteware large jar or piece of roof furniture? |
| 1323 | c1750-1850? | 7 | 499 | Poss mix of sugar moulds & flowerpot frags? Incl 2x heavy bead rims. 1 v prob mould sherd - shaved int with ext splash glaze. 1x heavy flat base - ?flowerpot - but no visible perforation |
| TOTAL | | 186 | 13000 | |

Table A2.2 Clay pipe table by context and type

| Context | Spot-date | Stem | Bowl | Mouth | Tot sherd | Tot Wt | Comments |
|---------|-----------|------|------|-------|-----------|--------|--|
| 0 | c1733-54 | 0 | 1 | 0 | 1 | 14 | Complete bowl (spur broken). 18C type with 'WF' relief circular stamp on side (see 1321). Same as in 1321 but slightly larger slightly different stamp |
| 1102 | 18-19C | 1 | 0 | 0 | 1 | 4 | |
| 1103 | c1730-80 | 1 | 1 | 0 | 2 | 14 | Plain spurred 18C-type bowl |
| 1107 | 17-18C | 2 | 0 | 0 | 2 | 8 | Stem bores c2 & 3mm |
| 1108 | 18-19C | 1 | 0 | 0 | 1 | 3 | |
| 1206 | c1660-80 | 4 | 5 | 0 | 9 | 46 | Min 2 pipe bowls. 1 with missing spur, other with prominent oval heel |
| 1212 | 17C | 1 | 0 | 0 | 1 | 7 | Stem bore c3.3mm |

| Context | Spot-date | Stem | Bowl | Mouth | Tot sherd | Tot Wt. | Comments |
|--------------|-----------|-----------|-----------|----------|------------|------------|---|
| 1221 | c1660-80 | 0 | 1 | 0 | 1 | 20 | Complete bowl. Broad circular heel with incuse circ stamp enclosing initials 'RN' & foliage above & below. Prob Richard Nunney 1655-1713 or his son Robert apprenticed 1676. Bowl type 1660-80 |
| 1309 | 18-19C | 1 | 0 | 0 | 1 | 5 | |
| 1316 | 18C | 5 | 1 | 1 | 7 | 37 | Prob before c1780. L17-18C spurred bowl frag - poss waster (scorched) |
| 1317 | c1733-54 | 6 | 2 | 1 | 9 | 41 | 2x 18C pipe bowls with incuse stamped initials on back. 1 complete spurred with 'CH' stamp - prob Charles Hicks 1721-46. The other fragmentary but prob spurred type with 'WF' stamp for William Foord 1733-54 (see 1321). Latter poss waster as scorched |
| 1319 | c1730-80 | 2 | 1 | 1 | 4 | 15 | 18C-type bowl with prominent spur |
| 1321 | c1733-54 | 36 | 35 | 4 | 75 | 528 | Min 31 pipe bowls. Incl 6x heeled 18C-type bowls with 'WF' incuse stamp on back of bowl - prob William Foord 1733-54. 1 spurred type with WF in relief circular stamp on side of bowl (prob waster). 6x ?early 18C-type bowls (heel/spur-less) with 'R. Tippet' in relief circ stamp on side of bowl - prob Robert Tippett III c1713-20. Pipe stems incl 3 prob wasters - 1 with traces of kiln wall. 18 plain bowls incl 13 heel/spur-less types. 1x poss 17C heeled type (fragmentary bowl) |
| TOTAL | | 60 | 47 | 7 | 114 | 742 | |

Table A2.3 Ceramic Building Material Data

| Ctx | No | Wt | Fab | Form | Dimensions | Comments | Fab descr |
|------|----|------|-----------------|-----------|-------------------------------|---|---|
| 1221 | 1 | 472 | Refractory clay | Kiln wall | 60 mm th | Flat surface with grey - black concretions from industrial process. | White cream calcareous sandy clay |
| 1321 | 1 | 2 | Pipe clay | Kiln wall | | Very fragmentary. | Fine white clay with frequent sand. |
| 1218 | 1 | 379 | 2 | Pantile | 17 mm th | | 2: Pinkish brown. Sandy clay with common small -medium qtz & red iron oxide & occasional ferruginous sst grit up to 6 mm |
| 1220 | 2 | 477 | 3.1 | Pantile | 13 mm th | | 3.1: Pinkish red laminated clay with cream-buff bands with red ferruginous clay inclusions up to 1 mm. |
| 1220 | 1 | 104 | 3.2 | Pantile | 12-13 mm th | | 3.2: Yellowish red laminated clay with paler buff bands and sandy lenses containing red ferruginous clay inclusions up to 1-7mm. |
| 1221 | 8 | 1231 | 1 | Pantile | >240 mm l, 240 mm w, 14 mm th | Fresh breaks all joining frags. The fragments form much of the upper half of a pantile with the nib (50x20x10 mm) surviving complete along the top edge. Part of both side edges survive, but no base edge. | 1: Brown. Fine fabric with red clay pellets 1-5 mm, white calcium carbonate speckling and rare white shell <1 mm. Moulding sand: coarse red (Fe stained) & clear quartz coarse moulding sand with distinct white speckling from frequent shell (fine sand size - 3 mm). |
| 1221 | 4 | 754 | 1 | Pantile | 14-16 mm th | Base angled corner fragment. Part of top edge with complete nib 50x20x10 mm | 1: One fragment contains large 1st grit 10 mm |
| 1314 | 1 | 204 | 3.1 | Pantile | 15 mm th | Fragment from curved side of tile. Mortar on part of outer surface & edge. | |

| Ctx | No | Wt | Fab | Form | Dimensions | Comments | Fab descr |
|-----|----|------|---------|------|------------|----------|-----------|
| | 19 | 3623 | (Total) | | | | |

APPENDIX 3 BIBLIOGRAPHY AND MAP SOURCES

BaRAS 2000 *Archaeological Desktop Evaluation of the Broadmead Redevelopment Site, Bristol. Rep no 727/2000*

Betts, I, 1999 *Lower Common Allotments*, Bath Assessment report on the Ceramic Building Materials unpubl.

Brooks, C.M., 1983 'Aspects of the Sugar-Refining Industry from the 16th to the 19th Century'. *Post-Medieval Archaeology*, 17, 1-14.

Morton, R 1999 *Archaeological desktop study of Penn Street/Bond Street, Bristol. Cotswold Archaeological Trust. Rep No. 991018*

Murless, B J, 1991 Somerset brick and tile makers: a brief history & gazetteer, *Supplement Somerset Industrial Archaeol Soc Bulletin* 58.

OA 1992 *Fieldwork Manual* (ed. D Wilkinson, First edition 1992)

OA 2003a *Broadmead Expansion, Bristol. Overall Written Scheme of Investigation for Archaeological Works*

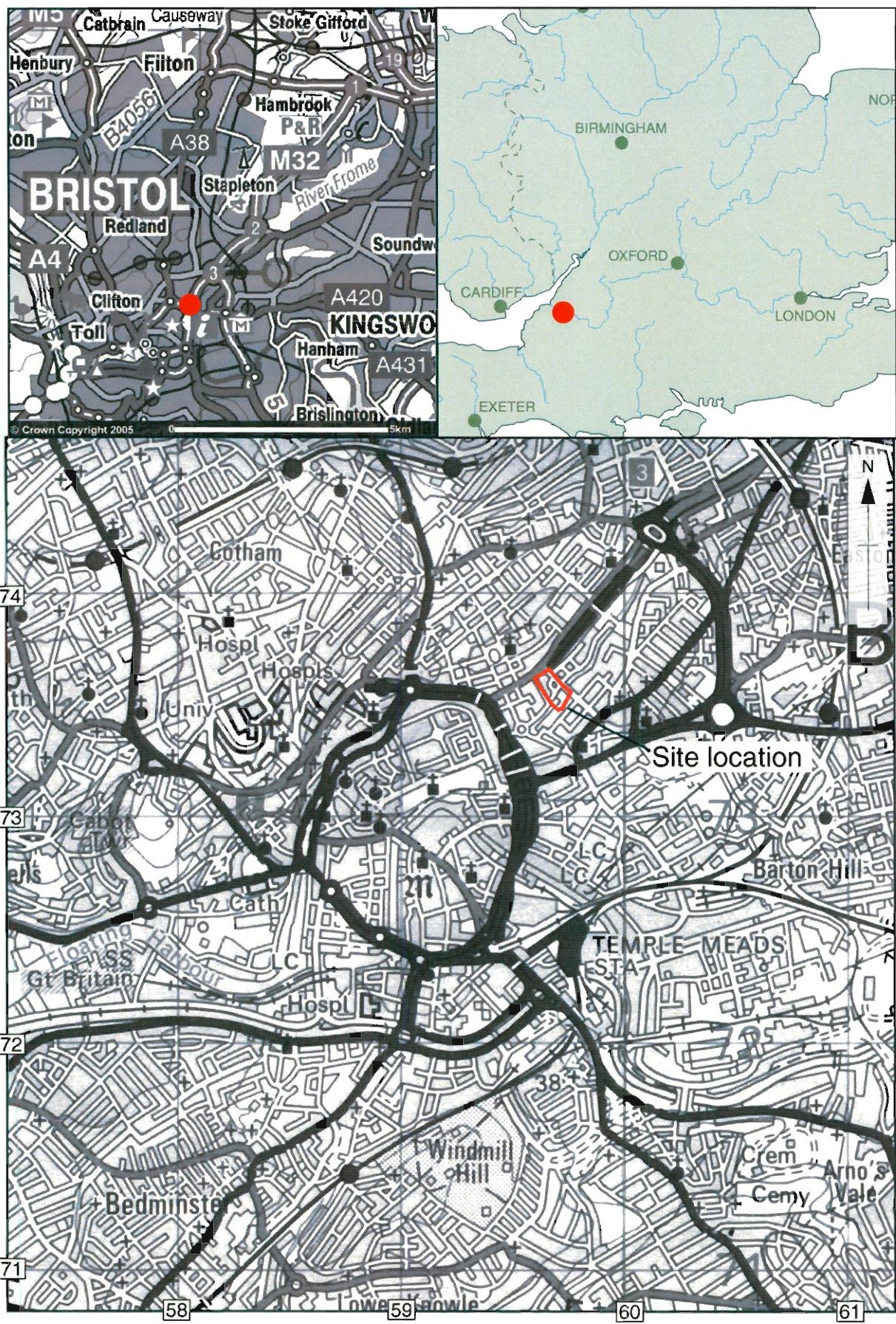
OA 2003b *Environmental Statement, Section 6, Archaeological Assessment*

OA 2005 *Main Scheme and Quakers Friars, Broadmead Expansion, Bristol. Evaluation Report.*

Oswald, A., 1975 *Clay Pipes for the Archaeologist*, BAR 14.

Map Sources

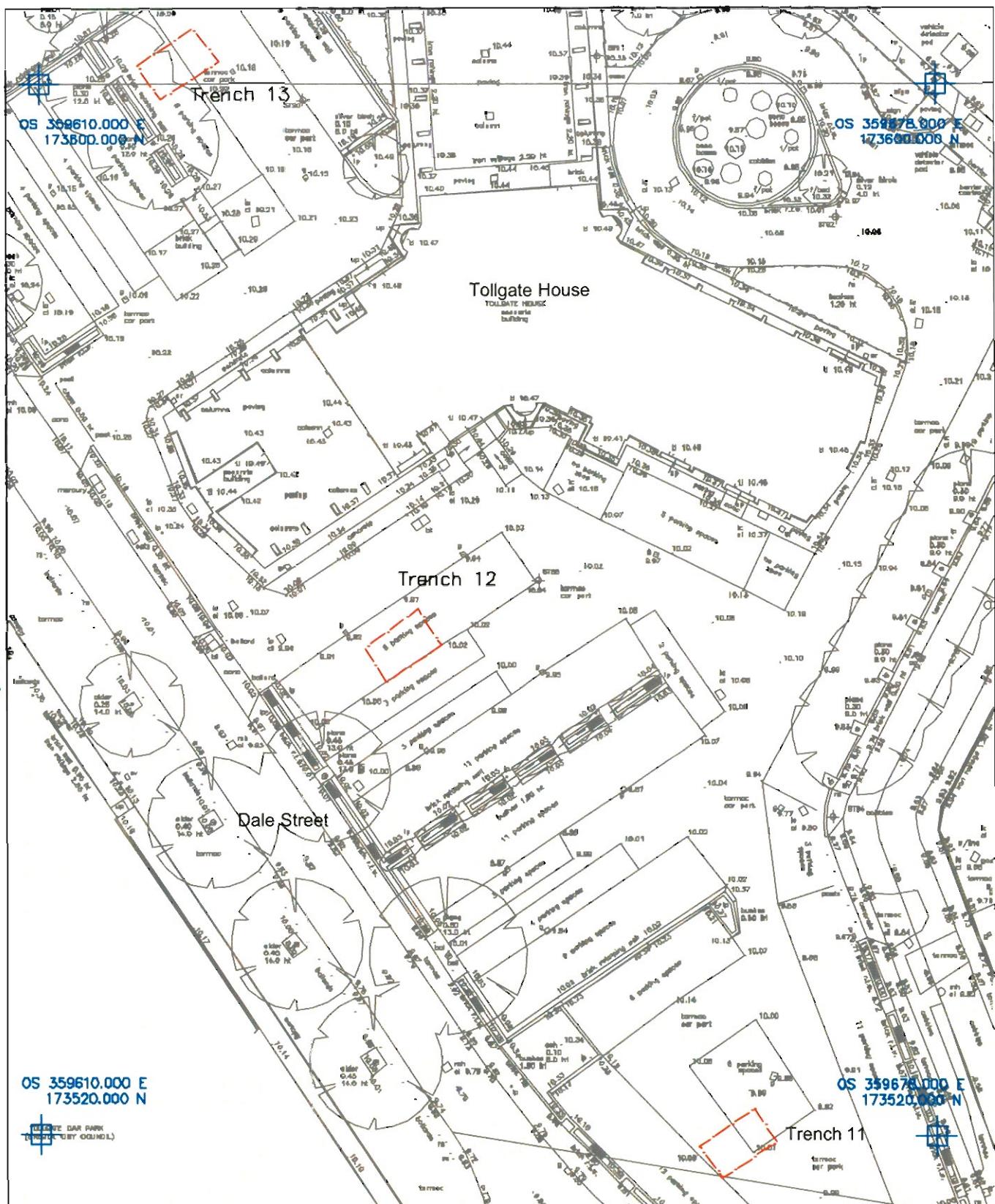
Smith's plan of 1568
 Heofnagle's plan, 1581
 Speede 1610
 Millerd plan 1673
 Millerd Plan, 1715
 Rocque's map of 1742
 Donne's Plan 1773
 Donne's Plan 1826
 Plumley and Ashmead's plan of Bristol, 1828
 Rapkin's plan of Bristol, early 1850s
 1870s plan of Bristol
 1st Edition OS Map, 1883
 OS Map 1949-50



Scale 1:25,000

Reproduced from the Landranger 1:50,000 scale by permission of the Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office
© Crown Copyright 1981. All rights reserved. Licence No. AL 100005569

Figure 1: Site location



trial trench
base map

Oxford Archaeology
Janus House,
Osney Mead,
Oxford,
OX2 0ES.

Tel: 01865 263800 Fax: 01865 793496
email: mail@oxfordarch.co.uk
web: www.oxfordarch.co.uk

BRBMEV
Bristol Broadmead

Drawing No. BBm2-01.11.05
Date printed 03.11.05

Figure 2:
Trench location

Survey Data supplied by :
(basemap) On Centre Surveys
(trenches) OA

Scale at A4 1:400



Plan 1101

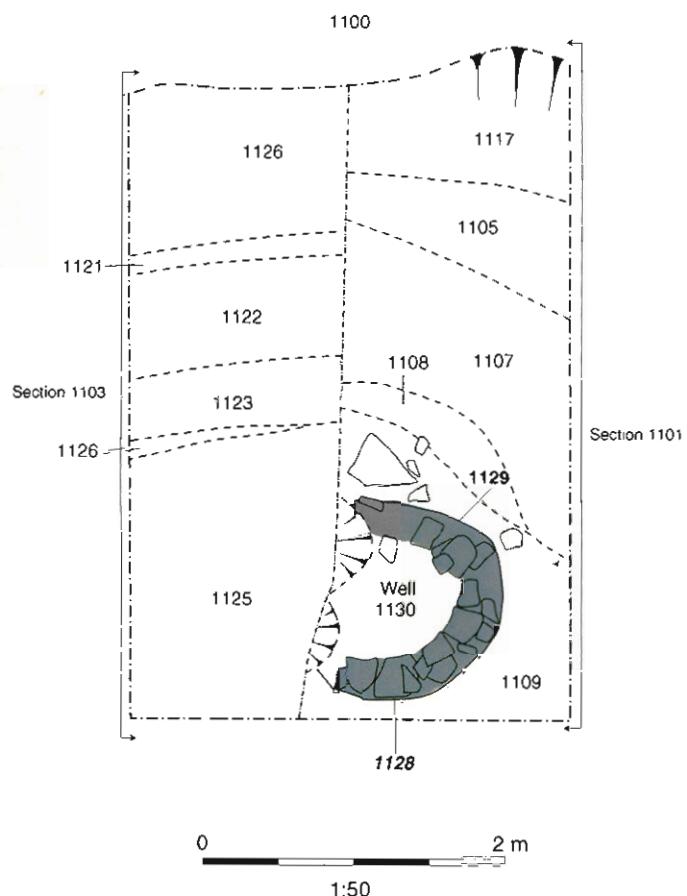
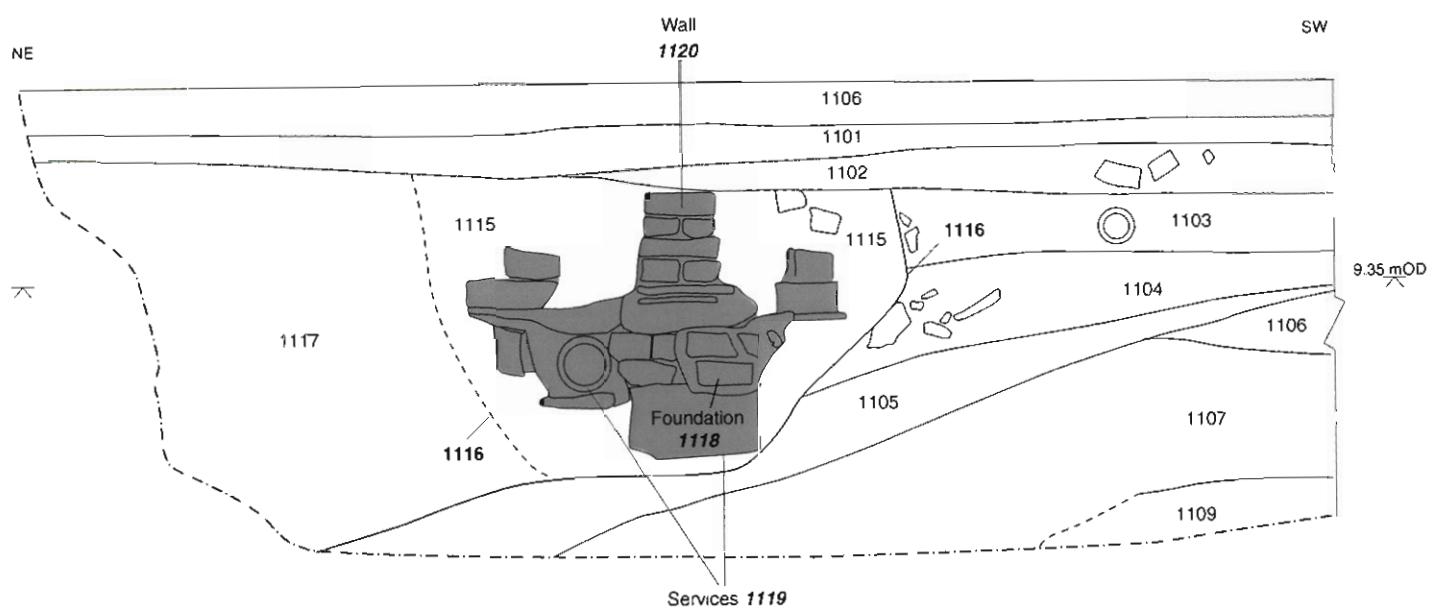


Figure 3: Trench 11, plan

Section 1101



Section 1103

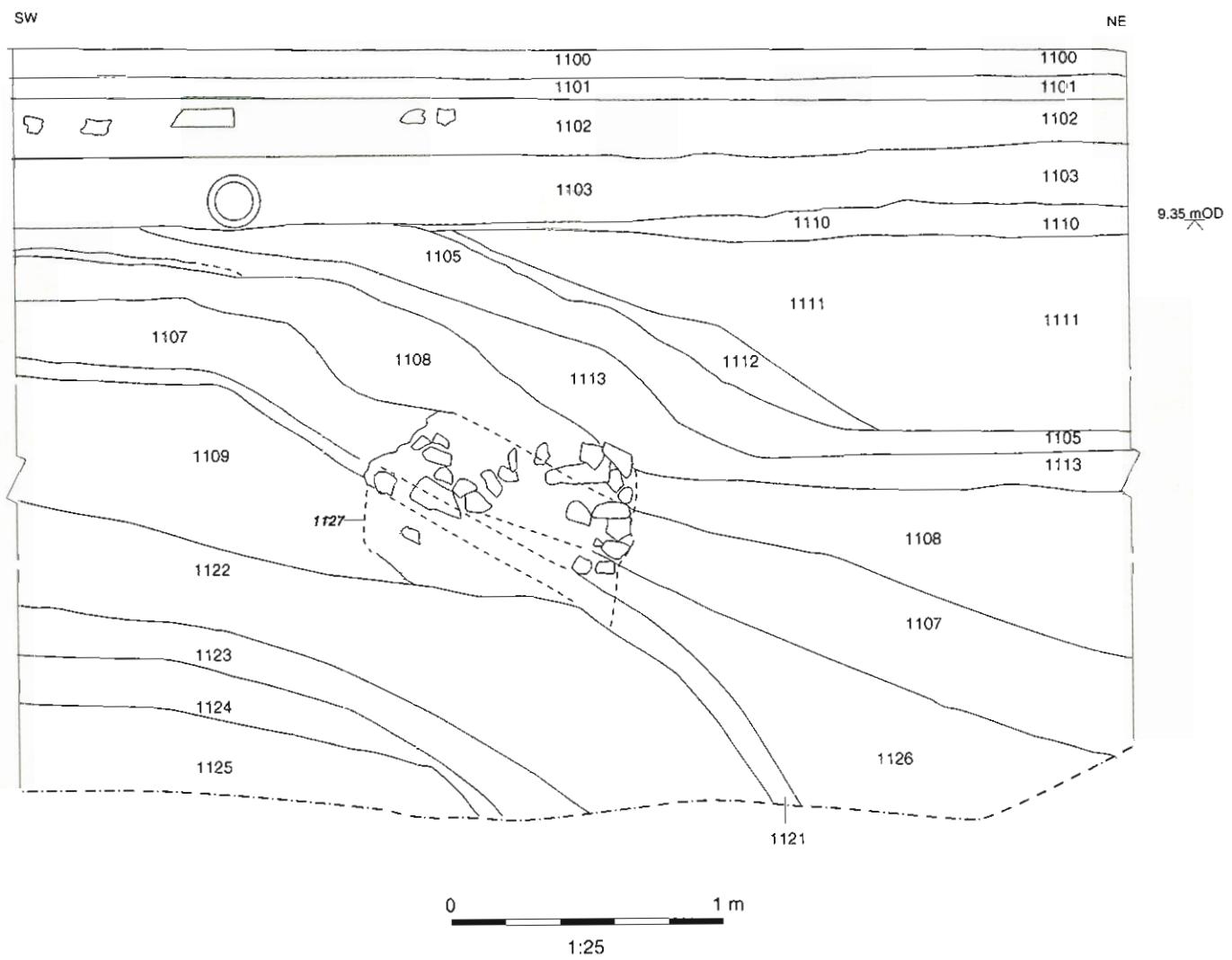


Figure 4: Trench 11, sections

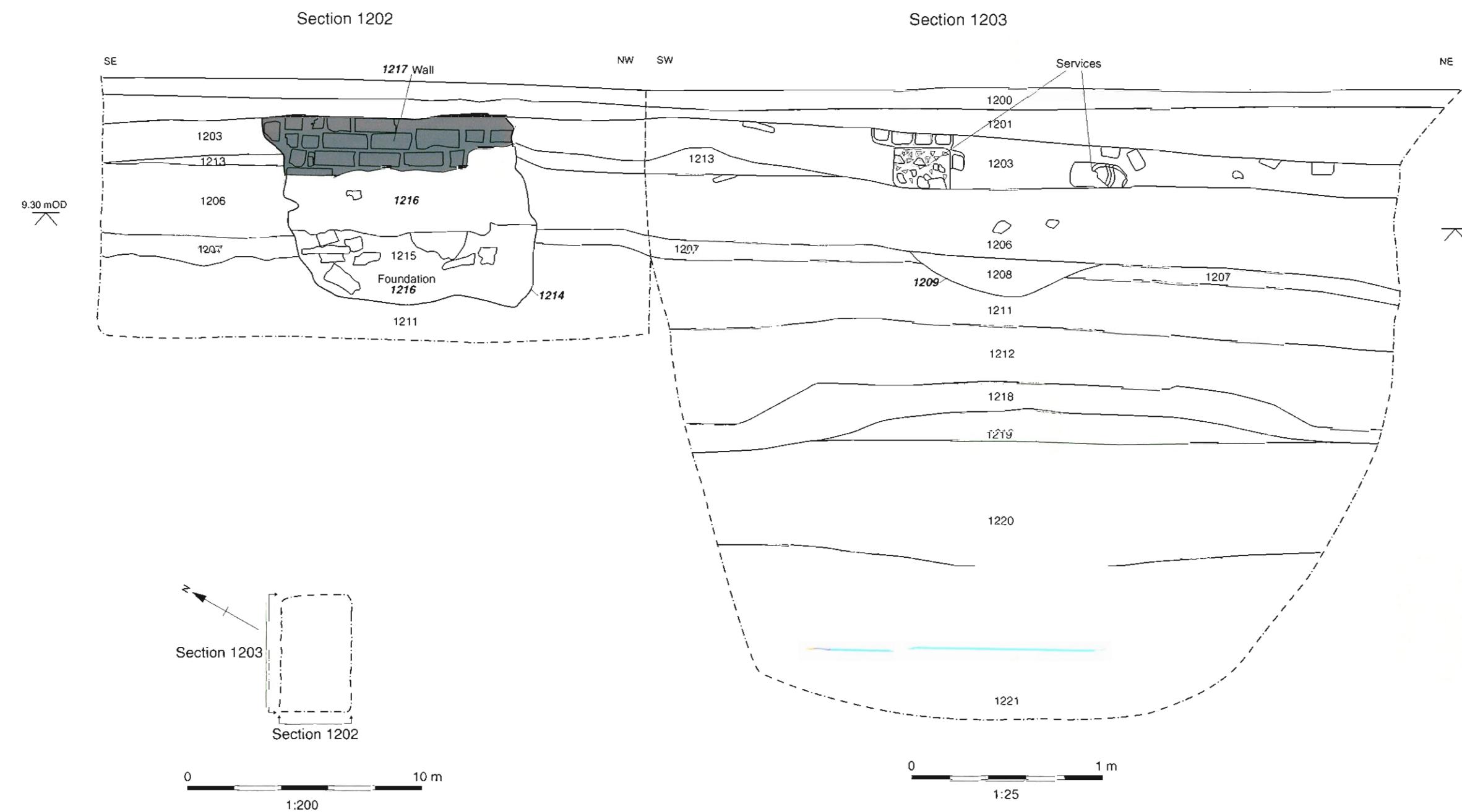


Figure 5: Trench 12, plan and sections

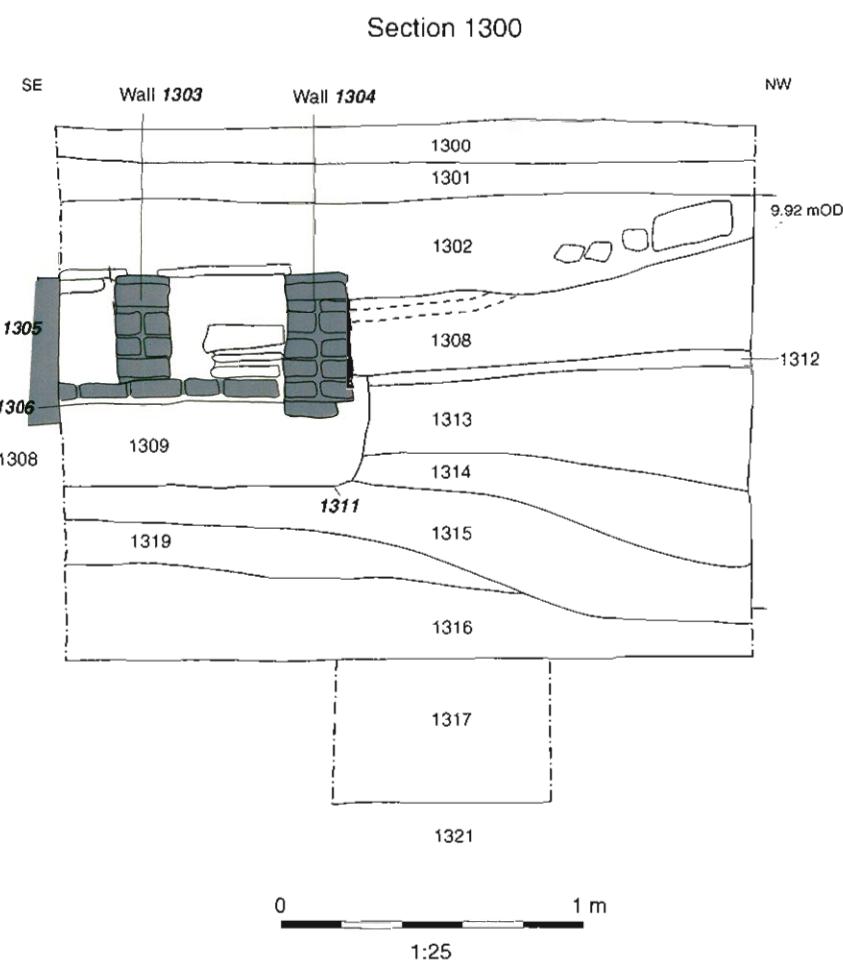
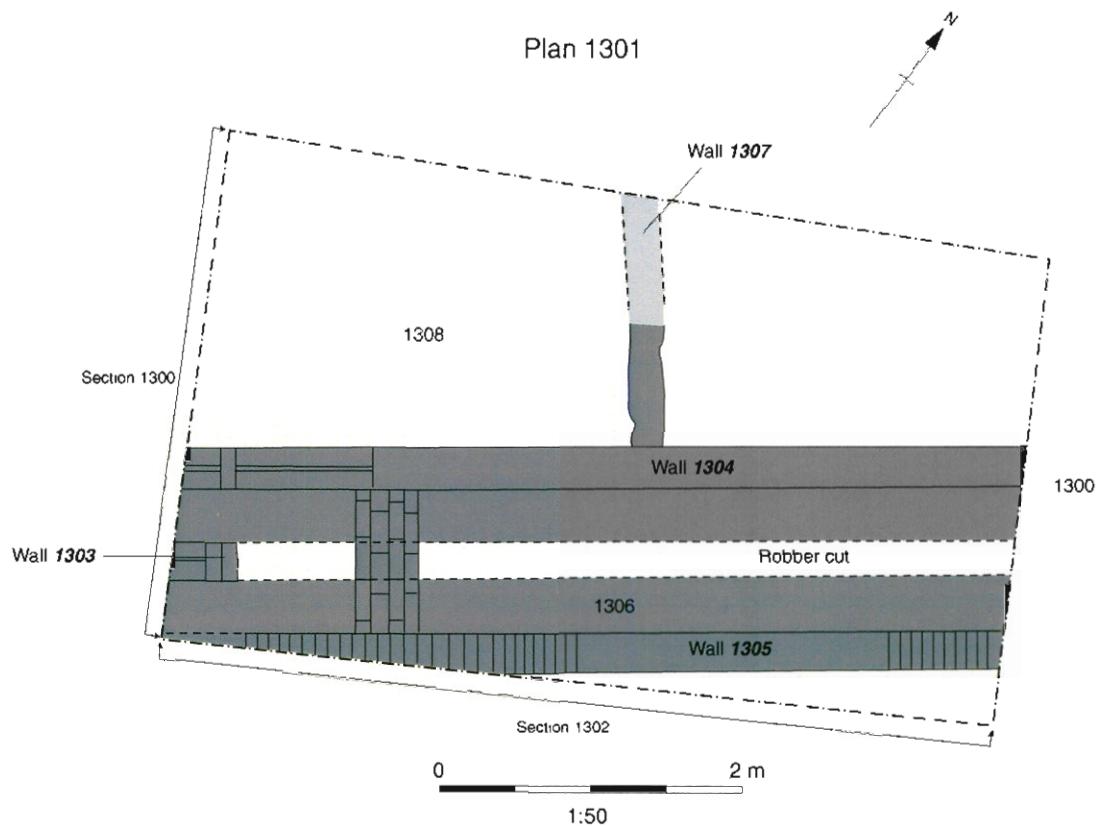


Figure 6: Trench 13, plan and section

Section 1302

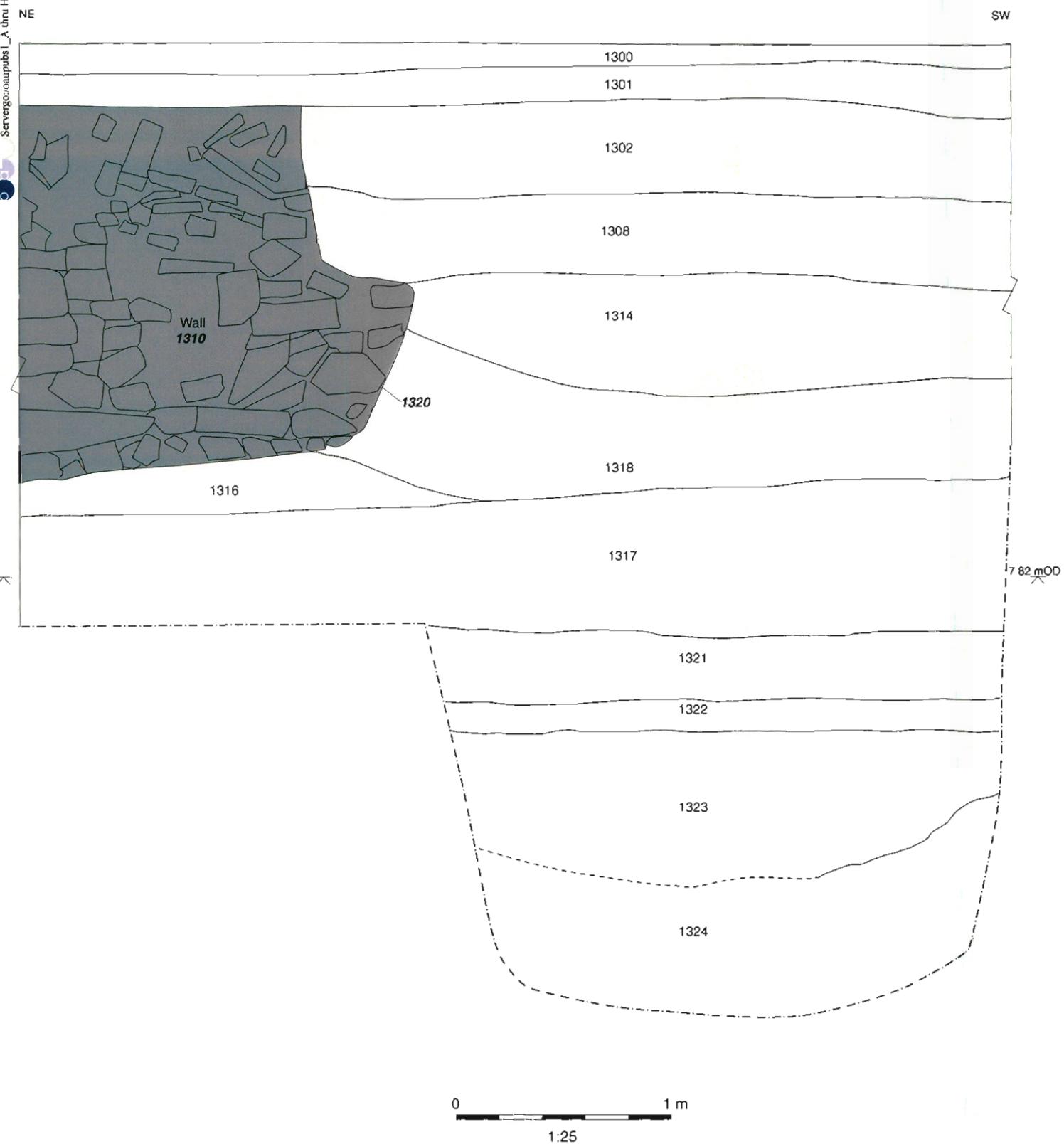


Figure 7: Trench 13, section



Oxford Archaeology

Janus House
Osney Mead
Oxford OX2 0ES

t: (0044) 01865 263800
f: (0044) 01865 793496
e: info@oxfordarch.co.uk
w: www.oxfordarch.co.uk



Oxford Archaeology North

Storey Institute
Meeting House Lane
Lancaster LA1 1TF

t: (0044) 01524 541000
f: (0044) 01524 848606
e: lancinfo@oxfordarch.co.uk
w: www.oxfordarch.co.uk



Director: David Jennings, BA MIFA FSA

Oxford Archaeological Unit is a
Private Limited Company, N°: 1618597
and a Registered Charity, N°: 285627

Registered Office:
Oxford Archaeological Unit
Janus House, Osney Mead, Oxford OX2 0ES

APPENDIX 4 SUMMARY OF SITE DETAILS

Site name: Broadmead Expansion, Bristol. Main Scheme - Tollgate House, Trenches 11-13

Site code: BRSMG: 2004/49

NGR ST 5930 7332 - centred

Type of evaluation: 3 x 5 m by 3 m trenches, part of Main Scheme evaluation

Date and duration of project: 3 days, September 2005

Area of site: 1 ha.

Summary of results: Structures and deposits of mid-late 18th century date. Build up deposits increasing ground depth by around 2.5 m. Victorian structures/walls associated with terraced properties on Dale Street.

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Bristol City Museum in due course, under the following accession number: BRSMG:2004/49