



Land Fronting Bold Lane, Derby, Derbyshire

Archaeological Evaluation Report

Oxford Archaeology North



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SUMMARY

Planning permission has been granted for the construction of 25 apartments, retail units, a restaurant, offices and associated car parking on land fronting Bold Lane in Derby (centred on NGR SK 3510 3640). The site forms part of the historic core of Derby, and lies within the designated City Centre Conservation Area and an Archaeological Alert Area as defined on the Derby City Local Plan proposals plan. In order to secure archaeological interests, Derby City Council attached a condition to development that allowed for an appropriate scheme of archaeological investigation in advance of development.

In the first instance, an archaeological desk-based assessment of the application site was carried out by Pre-Construct Archaeology Ltd in 2006. The assessment concluded that the site had considerable potential to contain buried remains of archaeological importance. In the light of this conclusion, the development Control Archaeologist for Derbyshire, who provides planning advice on archaeological matters to Derby City Council, recommended that a programme of intrusive investigation was carried out in advance of development. In the first instance, this was to comprise trial trenching, which was intended to establish the presence or absence of buried archaeological remains, and assess their significance. In accordance with this recommendation, and the resultant condition that was attached to the planning consent, Cre8 Management Ltd, acting on behalf of Blueprint, commissioned Oxford Archaeology North to produce a written scheme of investigation for the required works. This allowed for the excavation of five targeted trial trenches, coupled with a watching brief that was maintained during the removal of modern concrete surfacing from the site. Following the formal approval of the written scheme of investigation by the Development Control Archaeologist, Oxford Archaeology North carried out the trial trenching and subsequent watching brief in April 2009.

The results obtained from the trial trenches have demonstrated that the site has considerable potential for the survival of buried archaeological remains. Whilst it is not considered that any of these remains are of national importance that would necessitate preservation *in-situ*, the remains are considered to be of regional significance, and clearly merit further, more detailed investigation in advance of the proposed development of the site. In particular, the remains of pits, postholes and linear ditches, all of medieval date, were exposed across the eastern part of the site, with overlying deposits representing a continuous sequence through to the twentieth century. An important assemblage of artefacts, including medieval pottery and clay tobacco pipe manufacturing debris, was also recovered from the trenches.

An appropriate scheme of further archaeological investigation in advance of development will be required to mitigate the ultimate loss of the buried remains. The details of any further archaeological work required in advance of development would be devised in consultation with the Derbyshire Development Control Archaeologist. In broad terms, however, it is likely that a programme of detailed archaeological excavation of the eastern part of the site will be required. This may be coupled with a watching brief to monitor ground-reduction works along the Bold Lane frontage, which would be intended to compile a rapid record of the well-preserved remains of the eighteenth- and nineteenth-century cellars exposed within that part of the site.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Alan Hall of Cre8 Management Ltd for commissioning and supporting the project on behalf of Blueprint. Thanks are also due to Steve Baker, the Development Control Archaeologist for Derbyshire County Council Archaeological Services, for his advice and support. OA North is also grateful to Rachel Atherton, the finds liaison officer with Derby Museum and Art Gallery. Thanks are also expressed to Total Reclaims Demolition Ltd for considerable logistical support during the fieldwork. Especial thanks are due to Joan d'Arcy, and her colleagues of the Derbyshire Archaeological Society, for providing historical maps of Derby and invaluable background information.

The evaluation was directed by Andrew Bates, who was assisted by Andrew Frudd, Gemma Jones and Vickie Jamieson. The report was compiled by Andrew Bates, and the illustrations were produced by Marie Rowland. The pottery and ceramic building material was examined by Jeremy Bradley, the clay tobacco pipes and industrial residues by Sean McPhillips, the animal bone by Andrew Bates, and the palaeo-environmental assessment was carried out by Elizabeth Huckerby and Sandra Bonsall. The project was managed by Ian Miller, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Planning permission has been granted for the construction of 25 apartments, retail units, a restaurant, offices and associated car parking on land fronting Bold Lane in Derby (centred on NGR SK 3510 3640; Fig 1). This site falls within both the designated City Centre Conservation Area, and an Archaeological Alert Area as defined on the Derby City Local Plan proposals plan. In order to secure archaeological interests, and in accordance with Policy E24 of Derby's adopted Local Plan, Derby City Council attached a condition to development that allowed for an appropriate scheme of archaeological investigation in advance of development.
- 1.1.2 In the first instance, an archaeological desk-based assessment of the site was carried out, which aimed to establish the potential for buried remains of archaeological interest to survive *in-situ*, and the impact of the proposed development on these remains. The assessment was completed in August 2006 (Pre-Construct Archaeology Ltd 2006), and concluded that the application area had considerable potential to contain *in-situ* buried remains of archaeological importance.
- 1.1.3 In February 2009, Oxford Archaeology North (OA North) was invited by Alan Hall of Cre8 Management Ltd, acting on behalf of Blueprint, to submit a Written Scheme of Investigation for the second phase of archaeological investigation (*Appendix 1*). This comprised a programme of trial trenching, which was designed to inform on the extent, depth, function, chronology and relative significance of any archaeological deposits. The evaluation was coupled with an archaeological watching brief, which closely monitored the removal of modern concrete surfacing from across the site. It was intended that the results obtained from the evaluation and subsequent watching brief would inform a decision as to the requirement and scope of a strategy to mitigate the loss of any significant archaeological remains that will be destroyed by development. Following the formal approval of the Written Scheme of Investigation by the Development Control Archaeologist, the evaluation and watching brief were carried out by OA North in April 2009.
- 1.1.4 This document presents the results obtained from the work, and assesses the significance of the archaeological resource of the site. In addition, recommendations for an appropriate strategy for further investigation to mitigate the ultimate loss of archaeological remains during the course of the proposed development are presented.

2. METHODOLOGY

2.1 WRITTEN SCHEME OF INVESTIGATION

- 2.1.1 All work was carried out in accordance with the Written Scheme of Investigation (*Appendix 1*), and was consistent with the relevant standards and procedures of the Institute of Field Archaeologists (1999), and generally accepted best practice.

2.2 TRIAL TRENCH EVALUATION

- 2.2.1 ***Trench configuration:*** in total, five trial trenches were excavated across the study area, each measuring 10m long and 3m wide (Fig 2). The trenches were targeted on areas thought to have had the least disturbance, based on an analysis of the available historical mapping.

- *Trench 1:* was aligned south-east/north-west adjacent to the Bold Street frontage, in the southern corner of the study area. The position of the trench straddled two blocks of buildings depicted on Moneypenny's map of 1791, which provides the earliest reliable survey of the site. Trench 1 also crossed a former access route that is shown consistently as being undeveloped on the sequence of historic maps;
- *Trench 2:* was aligned north-east/south-west in the north-western part of the site. It was targeted upon the northern edge of a building shown on Moneypenny's map of 1791, and another parcel of land that seemingly remains undeveloped until the 1830s.
- *Trench 3:* was aligned north-east/south-west, placed some 15m to the north-east of Trench 1, and targeted upon a part of the study area that does not appear to have been developed until the mid-twentieth century; it is shown to have formed a courtyard on the sequence of historic maps.
- *Trench 4:* this trench was excavated on a north-west/south-east alignment, placed in an area of back plots. The trench was also targeted upon early nineteenth-century buildings, thought to represent single-roomed cottages.
- *Trench 5:* was aligned east/west across the northern part of the site. The eastern part of the trench was targeted upon the rear portion of a building shown on Moneypenny's map, and named as a theatre on Brayley's map of 1806. The western part of the trench investigated land that does not appear to have been developed until the twentieth century, and even then only partially.

- 2.2.2 **Excavation:** each trench was excavated in areas currently sealed by modern concrete or tarmac, 0.10m to 0.30m thick, which was broken through prior to their excavation by a hydraulic breaker fitted to a mechanical excavator. Trenches 1, 3 and 4 were then excavated using a 30-ton tracked machine, and Trenches 2 and 5 using a 6-ton machine, both fitted with a 1.8m wide toothless bucket. The machine operated under close archaeological supervision, down to the first archaeological deposits, whereupon all further excavation was completed manually. All spoil was scanned for artefacts.
- 2.2.3 Recording comprised a full description and preliminary classification of the deposits and materials revealed on OA North *pro-forma* sheets. The trenches were located with a Total Station Theodolite (TST) and tied into the Ordnance Survey grid. Hand-drawn plans were produced showing the contents of the trenches, with representative sections being drawn at a scale of 1:10 or 1:20 as appropriate. An indexed photographic record using monochrome, colour slide and digital formats was maintained.

2.3 WATCHING BRIEF

- 2.3.1 A programme of field observation recorded the location, extent, and character of all surviving archaeological features within the area of ground disturbance. All excavation work was carried out using a mechanical excavator, operating under close archaeological supervision. All archaeological features and horizons exposed were recorded on OA North *pro-forma* recording sheets.

2.4 ARCHIVE

- 2.4.1 The results of the archaeological evaluation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects*, 2nd edition, 1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (Walker 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project.
- 2.4.2 OA North conforms to best practice in the preparation of project archives for long-term storage. The archive and the excavated material be deposited with the Derby Museum and Art Gallery on The Strand, Derby. In addition, a copy of the archive can be made available for deposition in the National Archaeological Record. In addition, the Arts and Humanities Data Service (AHDS) online database project *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.
- 2.4.3 The material and paper archive generated from the evaluation will be transferred in accordance with the guidelines provided by *Procedures for the Transfer of Archaeological Archives* (2003). The Derby Museum and Art Gallery accession number is DBYMU 2010-17.

3. BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1.1 The proposed development site is located on the eastern side of Bold Lane, between Sadler Gate and St Mary's Gate (centred on NGR SK 3510 3640), in the medieval core of Derby. The site lies at a height of *c* 48m above Ordnance Datum (aOD). The ground surface rises gently to the east, away from Markeaton Brook, a tributary of the River Derwent, which ran north/south along the western side of Bold Lane, and is now culverted.
- 3.1.2 The solid geology of Derby consists of Triassic Mudstone (Keuper Marl). The site is situated in the valley floor of the River Derwent and, as such, the overlying drift geology comprises floodplain alluvium overlying sand and gravel derived from Millstone Grit located upstream (Mello 1876).

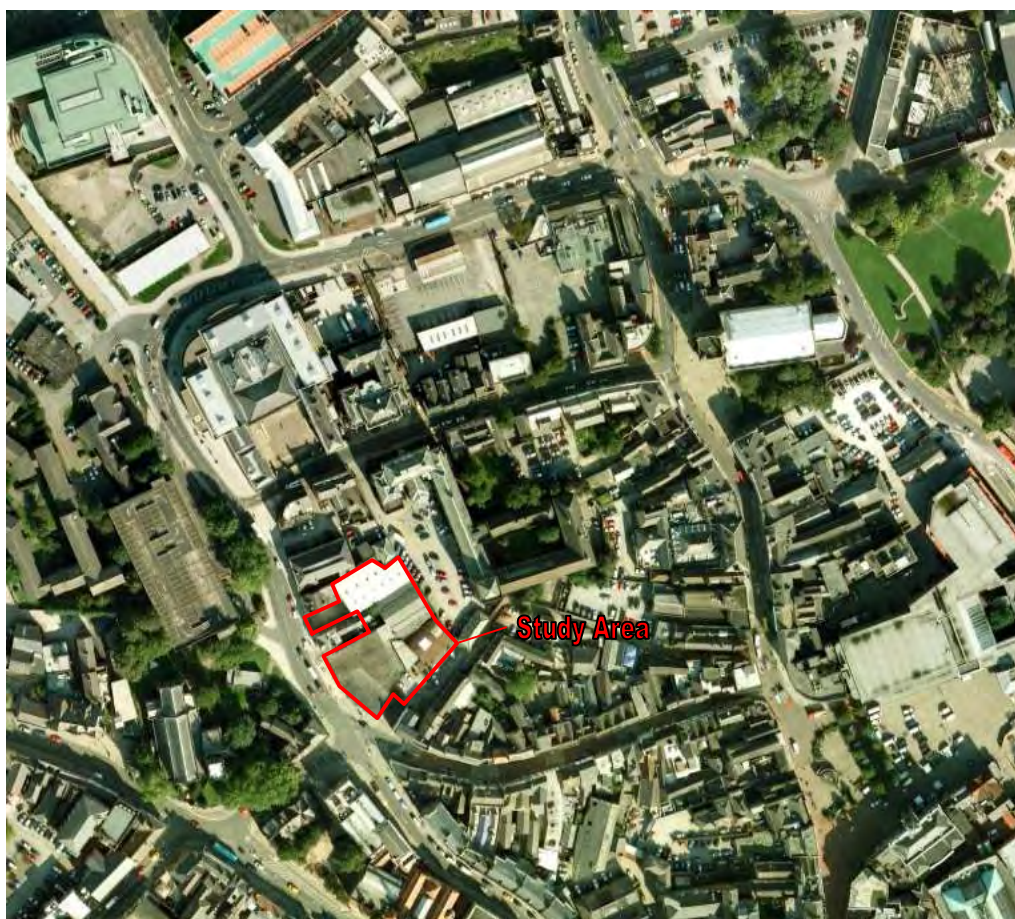


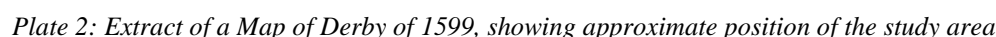
Plate 1: Recent aerial view of the study area

3.2 HISTORICAL BACKGROUND

- 3.2.1 The following section presents a summarised historical background to the study area, and is intended to place the results obtained from the evaluation in a local and regional context. The historical background has been drawn from the desk-based assessment of the site undertaken by Pre-Construct Archaeology Ltd (2006), enhanced by information provided by Joan d'Arcy and her fellow members of the Derbyshire Archaeological Society.
- 3.2.2 **Roman period:** a Roman settlement known as *Derventio* was founded at Derby and, in the absence of any known prehistoric remains in the centre of the city, may represent the earliest activity in Derby. Two Roman forts are known to have been located in the town. The earliest is located at Strutts Park, situated c 1.4km to the north-east of the present study area, thought to date to around AD 50 (Higgins 1999). Another fort was constructed in close proximity to the original fort at Little Chester around AD 70, and an extra-mural settlement appears to have developed subsequently. Excavations directed by M Brassington in the early 1970s produced evidence of Roman industrial activity, including pottery manufacture, together with a large cemetery containing mausolea. A possible bath-house with a hypocaust was also recorded in the 1920s (Myers 2000). However, the centre of Roman activity lies to the north of the medieval town, whilst the nearest Roman find spot to Bold Lane lies some 0.6km due east, and comprises a single coin recovered during excavations at Exeter Bridge in 1923.
- 3.2.3 **Early medieval period:** documentary evidence suggests that Derby became a Saxon *burgh* in the ninth century, when it was known as *Nothworthy*, first mentioned in the chronicle of Aethelward in AD 871 (Hall 1974). *Nothworthy* is recorded as being situated to the north of the present study area. A second Saxon centre is thought to have become established around St Werburgh's church, which lies c 0.1km to the south-west of the present study area.
- 3.2.4 Place-name evidence suggests a Viking influence; 'Derby' derives from the Nordic word '*Deorby*', which breaks down into '*Deor*' meaning 'deer' or 'wild animal', and '*by*' a general word for settlement (Northcote and Toller 1898). After the arrival of the Vikings, Derby became one of the five boroughs of Danelaw (Rogerson 1998), and documentary evidence suggests that the town continued to function as a major economic centre during this period (Barrett 2000a). An example of its economic status derives from written reports concerning the founding of a mint in the city, which produced coins between AD 959-73 (Derbyshire County Council SMR).
- 3.2.5 However, physical evidence of Anglo-Saxon and Viking occupation in Derby is rare. Several Anglian burials were unearthed during excavations at Little Chester in the 1970s, situated approximately 1km to the north-east of the study area, although the information derived from these excavations await publication (Barrett 2000b). Excavations in 1968 at St Alkmund's Church, situated approximately 0.6km to the north of the study area, revealed the remains of a sequence of churches dating back to the Saxon period. The earliest phase of construction is thought to be pre-ninth century (SMR number 32398 MDR10546). An 'elaborately decorated' Saxon sarcophagus was

recovered from the south-east corner of the pre-ninth century building. It is thought that the sarcophagus was intended to house the relics of St Alkmund. In addition, the fragmentary remains of seven pre-Conquest carved stones were also recovered during construction of the new church in the nineteenth century and by the 1968 excavation, which are typologically typical of the Saxon period. These included several fragmented ninth-century crosses and two eleventh-century grave covers. Several Saxon burials were also recorded at the site. Most of the burials are probably contemporary with the original church, although four are thought to be later 'charcoal' inhumations dating to the tenth century. A silver penny was also recovered, inscribed with 'MIRABLIAFECIT' and 'DOMINUS DEUS OMNIPOTES REX'; the coin is a well-known Viking type (SMR number 32003 MDR4532).

- 3.2.6 Other find spots include the rim of a Stamford-type ware cooking pot recovered during works in Tenant Street, c 0.5km to the south-east of the present study area. It is thought to date to the Saxo-Norman period (SMR number 32401-MDR10555). In addition, a possible Saxon pin was found during excavations at Full Street (SMR number 18914-MDR4562), less than 0.3 km to the east of the study area.
- 3.2.7 **Medieval period:** Derby continued to function as an economic and religious centre following the Norman Conquest, and emerged as one of the region's major medieval market towns. Few excavations have taken place in the centre of Derby and, as a result, physical evidence of this period is limited (Barratt 2000c). However, documentary evidence and several standing medieval buildings attest to the prosperity of the town at this time.
- 3.2.8 The buildings and associated land holdings on Sadler Gate, situated to the south of the study area are long, narrow and terraced, resembling medieval burgrave plots. The distribution of buildings, both ancient and modern, on Iron Gate to the east also appear to resemble burgrave plots reflecting the street's medieval origins. The four streets that encompass the present study area appear to have medieval origins; Sadler Gate, Iron Gate, St Mary's Gate and Bold Lane are shown clearly on a map of Derby dated to 1599 (Plate 2), although Bold Lane is not actually marked.
- 3.2.9 Mary's Gate was probably named after St Mary's Church, which archaeological and documentary evidence suggests was situated on the corner of St Mary's Gate and what is now Queen Street (SMR 32021- MDR4557). The church was extant by at least 1185, and the street probably acquired its current name soon after the church's construction. Sadler Gate and Iron Gate may similarly have derived their names in the medieval period, reflecting the predominant trade practised on each. This mode of naming streets is common to many English towns that have medieval origins. Vestiges of the streets' industrial and commercial past are apparent in commercial directories compiled at the turn of the nineteenth century, with a disproportionate number of leatherworkers on Sadler Gate and Ironworkers on Iron Gate (Glover 1827-9).



- © OA North: April 2010

- 3.2.13 **Post-medieval period:** the map of 1599 (Plate 2) depicts St Mary's Gate, Saddler Gate and Iron Gate, with Bold Lane present but not named. This map is not to scale, making location of specific boundaries and structures difficult. On the eastern side of Bold Lane, six blocked areas buildings can be identified with adjacent back plots. It is likely that these blocked areas represented more than one dwelling. The plot of land at the northern end of Bold Lane appears to be empty. The roughly east/west-aligned boundary in the area bound by Iron Gate, Sadler Gate, St Mary's Gate and Bold Lane has a notable reverse-S shape in its course. This form of aratral curve in a field boundary is characteristic of a boundary which an oxen-drawn plough may have followed (Beresford and Joseph 1979, 23). As such, this boundary may be of some antiquity, and appears to survive in some form to be depicted in Brayley's Map of 1806.
- 3.2.14 John Speeds map of 1610 similarly indicates that the area fronting onto Bold Lane was occupied by residential or commercial properties (Plate 3). Between seven and eight buildings are depicted on the 1610 map fronting the eastern side of Bold Lane, one of which located on the corner of Bold Lane. Speed's map is, however, schematic and cannot be relied upon for accuracy.



Plate 3: Extract of John Speed's map of 1610, showing approximate position of the study area

- 3.2.15 George Moneypenny's map of 1791 also depicts several properties bordering Bold Lane (Plate 4). Three buildings can be discerned fronting the eastern side of Bold Lane, one can be seen on the corner of Bold Lane and St Mary's Gate. The penultimate structure to the north on Bold Lane was originally a malthouse, constructed in the early eighteenth century. It had been converted into the city's first theatre in 1773 (SMR number 32126-MDR10257).

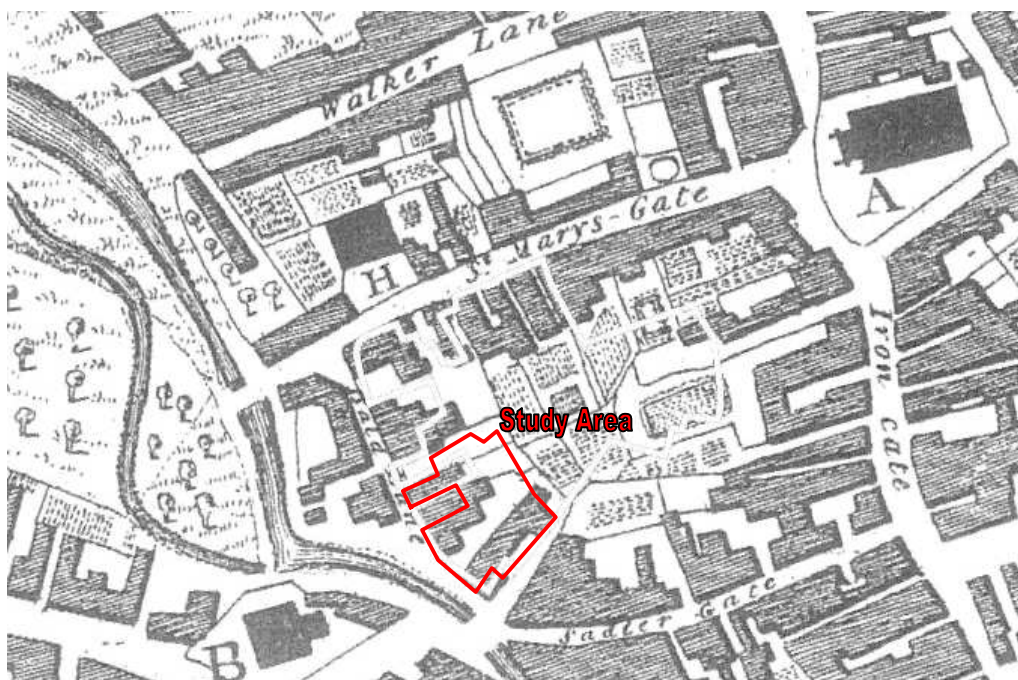


Plate 4: Extract from Moneypenny's map of 1791

- 3.2.16 A map of Derby produced by the Board of Health in 1852 depicts several changes to the layout of the buildings in the area (Plate 5). Those to the rear of Bold Lane, for instance, appear to have been partially demolished with thin linear extensions added, potentially single-roomed cottages. Internal divisions within these extensions and associated outhouses are also illustrated. The small size and irregular arrangement suggest that some or all of these buildings were built on an *ad hoc* basis, and are likely to have been relatively insubstantial structures. They may represent workshops and storehouses used for mercantile or small-scale industrial activities, probably being associated with commercial properties on Bold Lane, St Mary's Gate, Sadler Gate and Iron Gate. This hypothesis is supported by entries made in commercial directories dating from 1827 onwards, which indicate that the properties lining the four surrounding streets were occupied by retailers and craftsmen, in addition to being used as domestic residences.

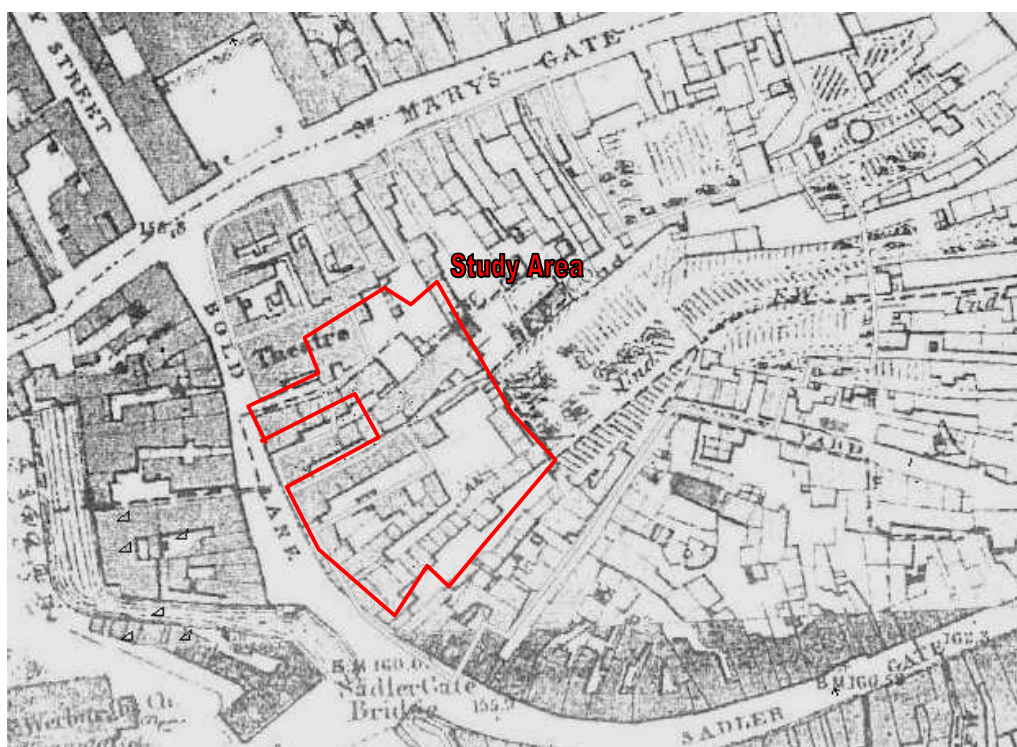


Plate 5: Extract from the Board of Health's map of 1852

- 3.2.17 An array of manufacturers and tradesmen are listed as occupants of the four streets in directories dating to 1827-9 and 1835. Examples include basket makers, iron-workers, leatherworkers, builders, cabinet makers, coopers, joiners, dyers, rope makers and lace manufacturers. A number of merchants are also listed, including coal merchants, corn and flour dealers, tea dealers and silk merchants (Glover 1827-1829; Pigot & Co. 1835). This demonstrates that Bold Lane was at Derby's commercial heart during the late post-medieval period, and probably earlier. Most, if not all, of the occupations listed above would also need storage or work space in order to function, explaining the growth of outbuildings throughout the nineteenth century.
- 3.2.18 The detail provided by the 1889 Ordnance Survey map suggests that the post-medieval development of the study area had reached its peak by the late nineteenth century. The outbuildings in the south-east corner of the study area had been extended, infringing further upon the central portion of the site and essentially sub-dividing one of the southern courtyards in two components. The theatre was replaced by three smaller, rectangular buildings fronting Bold Lane, with a courtyard situated to their rear.

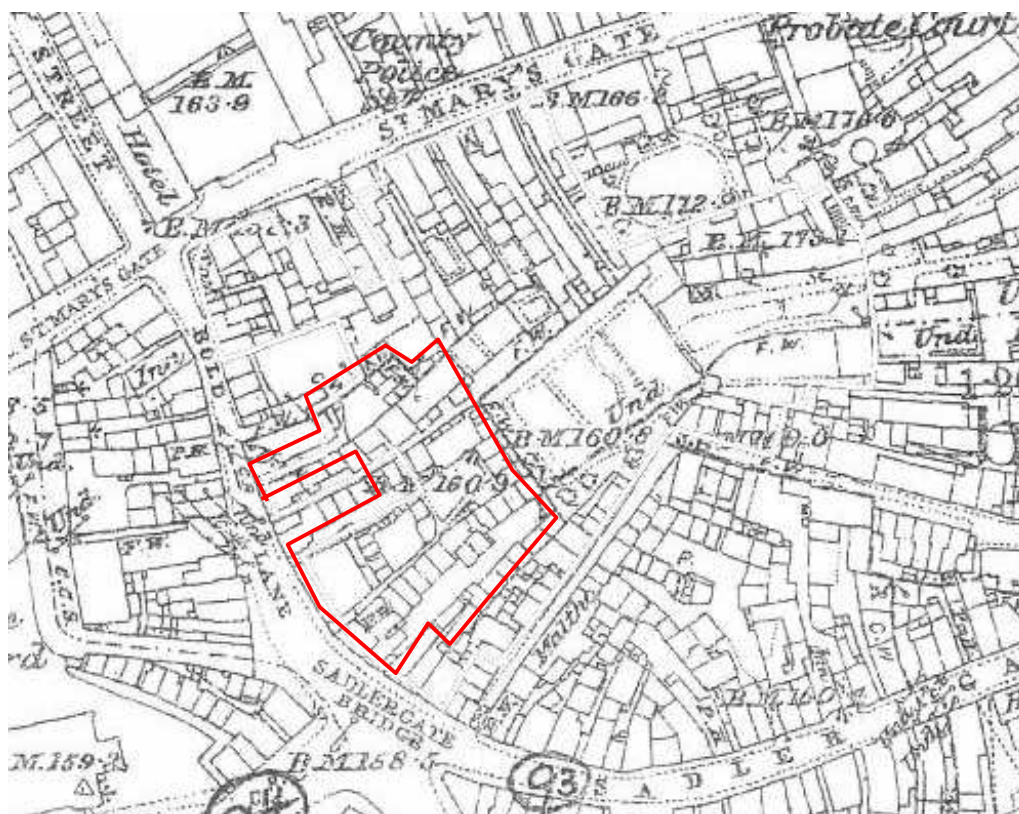


Plate 6: Extract from the 1889 Ordnance Survey map

4. EVALUATION RESULTS

4.1 INTRODUCTION

- 4.1.1 Five trenches, each measuring 10m long and 3m wide, were excavated across the study area (Fig 2), in accordance with the Written Scheme of Investigation (*Appendix 1*). An overview of the results is presented below, with a description of each deposit and archaeological feature provided in *Appendix 2*.

4.2 TRENCH 1

- 4.2.1 Trench 1 was aligned south-east/north-west adjacent to the Bold Lane frontage, in the southern part of the study area (Fig 2). The trench was located across the footprint of two blocks of buildings depicted on Moneypenny's map of 1791 (Plate 4), and also included land that is shown as undeveloped on historic mapping until the mid-nineteenth century.
- 4.2.2 The trench was excavated to a maximum depth of 2.6m, whereupon natural gravels (**10** and **11**) were encountered (Plate 7). Due to health and safety considerations, the remains exposed in the trench were recorded from the surface, with no staff entering the trench. The archaeological remains comprised the walls (**09** and **13**) of two brick-built cellars, which were exposed at either end of the trench (Plates 7 and 8), together with levelling deposits (**06** and **08**) that overlay the natural geology (Fig 3), and appeared to be associated with the construction of the cellars (Fig 3). The cellars were probably of a late eighteenth- or early nineteenth-century date, and their construction had clearly resulted in the destruction of any earlier archaeological remains in this part of the site.
- 4.2.3 Wall **09** (Plate 8) was located at a distance of 1.75m from the south-eastern end of the trench, with the uppermost course of bricks being exposed at a depth of 0.70m below the modern ground surface. The fabric of the wall comprised hand-made bricks bonded with a lime-based mortar, typical of late eighteenth- or early nineteenth-century construction. The remains of the floor of the cellar, again composed of hand-made bricks, were exposed at a depth of 2.1m. The cellar had been backfilled with demolition rubble (**07**), which was composed largely of bricks.
- 4.2.4 Wall **13**, at the north-western end of the trench (Plate 7), was visible below the modern concrete surface. The wall survived to a height of 2.0m, and was again constructed from hand-made bricks, each measuring 220mm by 106mm by 76mm. The bricks were bonded with a mid-grey lime-based mortar, and set in an English Garden Wall bond.
- 4.2.5 Two twentieth-century fuel tanks, most likely used to store the oil of a heating system, were exposed in the central part of the trench. Both tanks had been set within brick structures (**01**), each measuring 2.3m wide. One of the tanks was

removed by the machine, with the second still visible on the south-western side of the trench (Plate 7).



Plate 7: Trench 1, looking north-west, with cellar wall 13 visible at the end of the trench



Plate 8: Trench 1, looking north-east, with cellar wall 09 and brick rubble in-fill of cellar.

4.3 TRENCH 2

- 4.3.1 Trench 2 was aligned north-east/south-west, and was placed adjacent to the Bold Lane frontage in the north-western part of the study area. The trench was targeted on the northern edge of a building visible on Money Penny's map of 1791, and a second parcel of land seemingly undeveloped until the early nineteenth century (Fig 2).
- 4.3.2 The natural geology (**103**) was encountered at a depth of 1.2m below the modern ground surface (Plate 9), and was overlain by deposit **102**, which was 0.20m thick. The nature and consistency of deposit **102** was very similar to the medieval buried soil horizons excavated in Trenches 3, 4 and 5, although deposit **102** was not as deep, suggesting that the upper levels may have been removed by subsequent development of the site.
- 4.3.3 A thin deposit of clay (**105**) was exposed towards the eastern end of the trench (Fig 4). This was in turn overlain by a sequence of levelling deposits of probable late eighteenth- or early nineteenth-century date, which had a total depth of 0.75m.
- 4.3.4 The levelling deposits were cut by brick walls forming the cellar (**104**) of a building that had fronted onto Bold Lane. The position of the building corresponds with that shown on historical mapping of the site; the first map to show the building is that produced by Chatterton and Swalwick in 1819. Cellar **104** comprised a north-west/south-east-aligned wall, parallel to Bold Lane, at the south-western end of the trench. Keyed into this wall, a north-east/south-east-aligned wall was visible running down the length of the trench, forming the southern edge of the cellar (Fig 4). All of the walls were constructed of hand-made bricks, set in a lime-based mortar, and laid in an English Garden Wall bond. The brick-built floor of the cellar was exposed at the south-western end of the trench, together with an arched aperture that was seemingly built into the south-west-facing wall of the cellar (Plate 10). The intended function of the aperture remains uncertain, although it was seemingly too small to have been an entrance. A brick-built pier, situated 1m to the north-east of the aperture, almost certainly represented a structural component of the cellar (Plate 10).
- 4.3.5 The cellar had been backfilled with brick rubble, presumably derived from the demolition of the building in the twentieth century. The demolition rubble was sealed beneath a layer of concrete, which formed the modern ground surface (Plate 9).



Plate 9: General view across Trench 2, looking south-west



Plate 10: Arched aperture built into south-west-facing wall of cellar 104

4.4 TRENCH 3

- 4.4.1 Trench 3 was aligned east/west across the centre of the southern part of the site, and was excavated to a depth of 1.22m (Fig 5; Plate 11). This part of the site is depicted as a courtyard to the rear of the street frontage on the sequence of available historical mapping, and does not appear to have been developed until the mid-twentieth century.
- 4.4.2 Natural alluvium (28) was located at a depth of 1.05m at the eastern end of the trench (Fig 5). This natural deposit was cut at the eastern end of the trench by pits 14 and 16, both of which contained fragments of medieval pottery and iron-working residues. Further to the west, natural geology 28 was overlain by soil horizon 46/47 (Fig 5). Cutting this soil horizon in the western half of the trench were three pits (34, 73 and 74), although two of these lay only partially within the confines of the excavated trench. The two larger pits (73 and 74) measured as least 1.3m by 1.6m, and 2.70 by 1.2m respectively (Fig 6), and both contained quantities of medieval pottery within their fills (deposits 23 and 24 in pit 73, and deposits 25, 75 and 76 in pit 74). Pit fill 75 comprised a thin layer of charcoal-rich sediment, potentially hearth waste. Pit 34 was a shallower feature, measuring 0.37m deep, and contained a single deposit (35; Fig 7). No finds were recovered from this feature.



Plate 11: General view across Trench 3, looking west



Plate 12: South-facing section of pit 74

- 4.4.3 Overlying soil horizon **46/47** was layer **63**, which was cut by pit **18** (Plate 13). This sub-circular feature, which measured at least 1.20m long, 0.90m wide and 0.69m deep, was only partially located within the trench (Fig 7). Its fill (**19**) contained fragments of roof tile, to which a medieval date has been ascribed (Section 5, below).



Plate 13: East-facing section of pit 18

- 4.4.4 Pit **18** and layer **63** were overlain by levelling deposits, which were 1.0 – 1.1m deep, and of probable twentieth-century origin. Set within the levelling deposits, and seemingly of a contemporary date, were two sections (**21** and **26**) of a north-west/south-east-aligned drain.

4.5 TRENCH 4

- 4.5.1 Trench 4 was aligned north-west/south-east, and was excavated to a maximum depth of 1.2m (Fig 8; Plate 14). The trench was intended to investigate an area shown on historical maps as back plots until its development in the early to mid-nineteenth century. The trench also aimed to investigate a block of early nineteenth-century buildings shown on historical maps.
- 4.5.2 The natural geology (**96**) was exposed at a depth of 1.7m below the modern ground surface, and was overlain by a buried soil horizon, layer **32**, which measured 0.2m thick and was present across the entire trench. Several fragments of medieval pottery were recovered from this horizon. Two linear features, ditches **54** and **55**, were recorded cutting this soil.



Plate 14: General view across Trench 4, looking south-east

- 4.5.3 Ditch **54** was aligned north-east/south-west across the trench, although it seemingly turned to the south-east at the north-eastern edge of the trench (Fig 8). The ditch measured 0.5m wide and 0.5m deep (Plate 15), and contained two distinct fills (Fig 9). The primary fill (**62**) appeared to have been formed rapidly, deriving from a mix of the natural geology and sediment from the surrounding soil horizon during the initial stabilisation of the sides of the ditch. The overlying fill (**53**) was seemingly formed from the gradual accumulation of sediment eroded from the surrounding topsoils.
- 4.5.4 This north-east/south-west-aligned boundary is visible on Moneypenny's Map of 1791, with a kink in the boundary within the bounds of Trench 4. It would

thus seem likely that the medieval boundaries remained fossilised in the urban landscape until at least the late eighteenth century.

- 4.5.5 Ditch **55** measured 0.5m wide and 0.5m deep, and was filled by a single deposit (**56**), which seemingly derived from an accumulation of sediment eroded from surrounding topsoils. It lay perpendicular to, and to the south-east of, ditch **54**, continuing beyond the south-eastern limit of the excavated trench (Fig 8). To the east of ditch **54**, cutting the natural geology, was the base of a small pit or posthole (**57**). It measured 0.2m in diameter, but only 0.05m deep. However, it seems likely that it was originally somewhat deeper, and was perhaps contemporary with ditches **54** and **55**.



Plate 15: South-east-facing section of ditch 55, looking north-west

- 4.5.6 Ditches **54** and **55** were sealed by layer **31**, which comprised a homogenous deposit across the trench, 0.3m thick (Fig 9). The lower portion of this soil formation is likely to have been late medieval in origin, although its upper component is considered to be of post-medieval date. Overlying soil **31** was a second homogenous deposit, layer **30**, which was 0.19m thick and almost certainly of post-medieval origin.
- 4.5.7 Truncating these deposits, at the north-western end of the trench, was structure **29**, which continued beyond the north-eastern and north-western edges of the trench (Plate 16). Composed of hand-made bricks, it measured at least 3.10m in length, 2.4m wide, and 0.20m high. The narrower section, within the centre of the trench, measured 1.82m long and 0.99m wide, and contained a brick floor. The bricks of the structure each measured 240 x 115 x 60mm, and were bonded with mid-grey lime-based mortar. From the visible remains, the bonding pattern was thought to be that of English Garden Wall. The interior of

the of the structure was filled by deposit **33**, which contained numerous fragments of clay tobacco pipe, including pipe manufacturing debris (*Section 5 below*).



Plate 16: Structure 29 and foundation 93, looking south-west

- 4.5.8 Situated immediately to the east of the structure **29** was foundation **93** (Fig 8). It measured 0.28m wide and was at least 1.1m long, although it continued beyond the edge of the excavated trench. It was constructed from three courses of hand-made bricks, which each measured 240 x 115mm x 67mm, bonded by a mid-grey lime-based mortar, laid as stretchers lying parallel to structure **29**.
- 4.5.9 Also cutting layers **30** and **31** were foundations **90** and **91**, which were set *c* 2.5m apart (Fig 9). These comprised hand-made bricks, each measuring 230 x 110 x 60mm, bonded by a mid-grey lime-based mortar. Foundations **91** matches the position of the north-western foundations of a nineteenth-century cottage depicted on the Board of Health map of 1852.
- 4.5.10 The uppermost deposits in the trench comprised up to 1.5m of twentieth-century levelling layers, concrete, and the foundation of the recently demolished garage (**92**). After the excavation and recording of the above described features, the south-eastern 3.5m of the trench was excavated through soil horizon **32** to further test the depth of the natural alluvium. No further features were located in this area below layer **32**.

4.6 TRENCH 5

- 4.6.1 Trench 5 was aligned east/west across the northern part of the site, and was excavated to a maximum depth of 1.01m (Plate 17). The eastern part of the trench was targeted on the rear portion of a building depicted on Moneypenny's map of 1791, and named as a theatre on Brayley's map of 1806. The western part of the trench investigated land that does not appear to have been developed until the twentieth century.



Plate 17: General view of Trench 5, looking south-east

- 4.6.2 The natural geology (**94**) was encountered at a depth of 1.39m below the modern ground surface. This was overlain by a buried soil horizon (**95**), which had a uniform depth of 0.3m. Partial excavation of layer **95** yielded fragments of medieval pottery. Most of this deposit, however, was left *in-situ*, the depth of the natural geology being tested by the excavation of a 0.60m by 0.72m area in the south-eastern corner of the trench after all features cutting layer **95** had been fully investigated.
- 4.6.3 Layer **95** was cut by three pits or postholes: feature **86** at the south-eastern end of the trench; feature **84** in the central area of the trench; and feature **80** in the north-western half of the trench (Fig 10). These were all broadly the same size and shape, with a maximum length or diameter of 0.45m, and a maximum depth of 0.09m (Fig 11). However, considered together, they possibly formed a north-west/south-east alignment of postholes. It is possible, moreover, that feature **78**, located in the eastern part of the trench and to the north of feature **80**, represented a northerly return of this putative alignment. However, feature **78** differed from the other features in that it was of a rectangular shape with a flat base, and measured 0.53m long, 0.43m wide, and 0.25m deep.

- 4.6.4 In the centre of the trench, on its south-western side, was pit **82**. It measured at least 1.9m by 0.72m, although only part of the feature lay within the confines of the excavated trench, and a considerable element had been destroyed by the construction trench (**109**) for a post-medieval cellar (Fig 10). Pit **82** survived to a maximum depth of 0.35m, and contained two distinct deposits. At its base, a primary fill (**87**) comprised a mixed sediment that had presumably eroded from the natural geology and surrounding topsoil. Fill **87** was overlain by deposit **81**, which contained fragments of medieval pottery.
- 4.6.5 The physical remains of post-medieval development of the site was represented by cellar wall **88**, situated in the central part of the trench, and forming the northern corner of a building that first appears cartographically on Chatterton and Swalwick's map of 1819. The wall had a maximum width of 0.85m, and comprised hand-made bricks, each measuring 220 x 111 x 60mm, bonded with a mid-grey lime-based mortar. It is likely that brick foundation **108**, exposed at the eastern end of the trench, originally joined with cellar wall **88** (Fig 10), as its position corresponds with a row of buildings depicted on historical mapping. The edge of cellar **88** was cut by a modern brick structure (**97**) that contained a large metal fuel tank, identical to those exposed in Trench 1 (*Section 4.2.5 above*). In the north-western corner of the trench was a brick foundation.
- 4.6.6 A brick-built foundation (**98**) was exposed in the northern corner of the trench. The position of this foundation corresponded with a building that first appears cartographically on the 1914 Ordnance Survey map. The foundation was overlain by the uppermost deposits, which comprised modern overburden, sealed beneath a concrete surface.

5. FINDS

5.1 INTRODUCTION

- 5.1.1 In broad terms, the artefacts recovered from the evaluation were in reasonable condition, with little indication of abrasion, implying that they had not moved far from their original place of deposition. The assemblage was dominated by ceramics, including pottery, clay tobacco pipes, and ceramic building materials. Other material classes recovered from the evaluation included animal bone, with lesser amounts of metalwork and iron-working debris, glass, mollusc shell, and worked stone. A summary catalogue of the finds is presented as *Appendix 3*.

5.2 POTTERY

- 5.2.1 **Introduction:** in total, 107 sherds of medieval pottery, representing 22 fabrics, and post-medieval pottery were recovered from 18 stratified contexts and a single unstratified context. Only three of the stratified contexts (**19**, **25** and **110**) contained post-medieval pottery. The material was fragmentary, but relatively unabraded, suggesting that, on the whole, it had not traveled far from its original place of deposition. Sherd size was between 10 and 90mm, and although not large, several contexts did contain adjoining sherds or sherds from the same vessel.
- 5.2.2 The majority of the pottery was quite fine, with vessel walls seldom greater than 5mm. The assemblage represents a fairly utilitarian and limited range of vessels, dominated by jars/cooking pots, and a lesser number of jugs. The date range would suggest that the main focus of activity was between the twelfth and fourteenth centuries, with a small amount of fifteenth- and sixteenth-century material present. Evidence for seventeenth to nineteenth century was also fairly limited in terms of the ceramics recovered.
- 5.2.3 **Methodology:** the material examined with a X10 hand lens and quantified by sherd count and weight, and divided into fabric and vessel types. Individual rim, handle and base sherds were recorded separately to allow an estimate of the minimum number of vessels present within the assemblage. Although few joins were evident, there were enough diagnostic sherds present to give some indication of the distinctive vessel type present.
- 5.2.4 **Fabric series:** provisional analysis of the medieval pottery has produced 22 different fabric types, with only Fabrics 2, 4 and 14 with more than 14 sherds, and the majority of the fabrics producing fewer than six sherds.
- *Fabric 1:* pinky-buff fabric showing as a thin margin around the dark grey core. The fabric contains *c* 10% well-sorted medium sand and an even apple-green glaze.

- *Fabric 2*: buff pink fabric with a light grey core, containing *c* 10% moderately sorted medium quartz sand. Vessel type was restricted to jars/cooking pots.
- *Fabric 3*: a thin-walled light fabric with a yellowish hue, containing *c* 10%-15% well-sorted medium composite sand. Vessel type was restricted to a single cooking pot.
- *Fabric 4*: a partially reduced fabric, with the exterior oxidised to a pinky orange to orangy red with a grey core and interior, with splashed olive green glaze. The fabric appears 'pimply' and contains *c* 5-10% medium quartz sand and occasional iron stone inclusions. Vessel type was restricted to a single cooking pot.
- *Fabric 5*: reddish pink fabric with *c* 5% poorly sorted sand. Vessel type was restricted to a single cooking pot.
- *Fabric 6*: thin-walled fabric with a light green speckled glaze. The fabric was light grey in colour, with a faint lighter band below the glaze and contained *c* 5% well-sorted medium sand.
- *Fabric 7*: thin-walled pale yellow pimply fabric with pale core and darker interior, which contained *c* 5% moderately sorted medium sand.
- *Fabric 8*: hard-fired reduced fabric with *c* 5% medium quartz sand and decorated with thick orange glaze. Vessel type was restricted to sherd from a single cooking pot.
- *Fabric 9*: Pinky-orange fabric, with a grey core, containing well-sorted medium sand. Both jugs and jars/cooking pots represented.
- *Fabric 10*: thin-walled partially reduced fabric, with an orange exterior and dark grey core, containing *c* 10% poorly sorted medium sand.
- *Fabric 11*: Midlands purple ware. A hard-fired fabric dark orange to purple in colour with purple glaze, containing *c* 15% well-sorted quartz sand. Fabric type represented by a single jar.
- *Fabric 12*: orange-pink fabric with pale yellow interior, which contained *c* 10% moderately sorted medium quartz sand.. The glaze was smooth and brownish-orange in colour.
- *Fabric 13*: Cistercian ware. Very thin-walled simple rim fragment composed of a very fine purple fabric with no inclusions.
- *Fabric 14*: a very fine light grey fabric with a lighter core and dark interior (Plate 19). A single rouletted body sherd and everted rims present within assemblage.
- *Fabric 15*: fine thin-walled light grey fabric, with occasional ironstone inclusions. Vessel type was restricted to a single cooking pot.
- *Fabric 16*: grey to olive green/grey fabric, containing *c* 5-10% poorly sorted medium sandy fabric. Vessel type was represented single jar.
- *Fabric 17*: pale pink fabric with grey core, containing *c* 5% poorly sorted medium sand and *c* 2% coarser sand. Pale green glaze present.

- *Fabric 18*: oxidised fabric with lighter core, containing c 5-10% moderately sorted medium sand.
- *Fabric 19*: possible Saintonge, white sandy fabric with smooth yellow-green glaze.
- *Fabric 20*: dark grey fabric with lighter core, containing c 5% moderately sorted medium sand.
- *Fabric 21*: fine thin-walled fabric, fired to an almost stone ware hardness, with a pale blue core and buff-yellow exterior and occasional traces of splash glaze. A single jar was represented.
- *Fabric 22*: buff to pale orange exterior with a pinky buff containing c 10% well-sorted sand and occasional larger (3-4mm) chalk or limestone granules.

5.2.5 **Discussion:** this examination of the medieval pottery recovered from the evaluation is intended to outline the fabrics and vessel types present on the site, and give a broad date range. No attempt has been made to positively identify the fabric types from Bold Lane with those from other Derbyshire sites which can currently be accessed via the on-line *South Yorkshire/North Derbyshire Medieval Ceramic Reference Collection* (Cumberpatch 2004, <http://ads.ahds.ac.uk/>), although some general observations can be made.

5.2.6 Broadly speaking, the bulk of the pottery spans the twelfth to fourteenth centuries, with some evidence of fifteenth- or sixteenth-century activity represented by Cistercian and Midlands Purple wares. Post-medieval pottery was also sparse, and the few contexts that contained it date from the seventeenth to nineteenth centuries. Much of the pottery belongs to the sandyware tradition, and may be similar to the sandywares excavated at Barton Blount, Derbyshire (Beresford 1975, 70-1), whilst Fabric 15 may tentatively be ascribed to Derby Medieval Sandyware and Fabric 2 and 9, again tentatively ascribed to the Derbyshire Soft Orange sandy wares (Cumberpatch 2004, <http://ads.ahds.ac.uk/>). Barring the single sherds of Cistercian ware from pit fill **17** and Midlands Purple ware from pit fill **81**, there was nothing in the assemblage that need be later than the fourteenth century, based on such indicators as the lack of bunghole cisterns. The 35 fragments of post-medieval pottery (from pit fills **19**, **25** and Trench 5 overburden **110**) indicate activity from the eighteenth to nineteenth century, whilst the presence of the medieval flat roof tile within pit fill **19** might suggest that a building had been demolished/re-roofed in the eighteenth century.

5.2.7 Vessel types were restricted to unglazed or possibly accidentally splashed glazed, jars/cooking pots, although too little remained to be able to gain an idea of form. Only three jugs were recovered from the assemblage, all identified by their handles. Amongst these was a strap handle fragment, possibly from a Saintonge vessel. Saintonge is found in varying quantities throughout the British Isles (Capelot 1983, 51), most notably in ports, such as Hull (Watkins 1987, 82).



Plate 18: Pottery from deposit 24, Trench 3



Plate 19: Fragments of medieval pottery (Fabric 14) from deposit 60, Trench 4

5.3 CLAY TOBACCO PIPE

- 5.3.1 Some 400 fragments of clay tobacco pipe were recovered from deposit 33 (Trench 4). Of these, at least 20 almost complete pipes were represented, with fragments of an additional 70 spurred bowls of varying sizes. The remainder of the assemblage was dominated by narrow-bored stems, many of which were unfinished, indicative of pipe-manufacturing debris. No stamps were identified, and few of the bowl fragments were decorated other than a simple leaf design along the seam. Several fragments of kiln furniture and manufacturing waste were also recovered.
- 5.3.2 Typologically, the dimensions of the bowls suggest an eighteenth-century date of manufacture (Oswald 1975), although it is possible that production continued into the early nineteenth century. However, the lack of elaborately decorated bowls that characterise tobacco pipes of the mid- to late nineteenth century suggests that the kiln had fallen out of use prior to that date.
- 5.3.3 ***Kiln furniture and waste material:*** the fragments of kiln furniture probably pertain to a small updraught kiln that contained a muffle chamber in which the pipes were stacked. These chambers were usually formed from refractory clay containing pre-fired stems. Several artefacts from the evaluation represented internal components, which may typically derive from a kiln, including part of a broken muffle chamber wall containing abundant pipe stems (Plate 20), a bun fragment which supported the pipe moulds within the muffle chamber, a section from a cylindrical-shaped prop, clay pipe stem mould, and pieces of hand-moulded pipe clay possibly used as a bedding ring or a wad inserted between the muffle chamber and the kiln wall. Similar pieces of clay have been identified from nineteenth-century kiln material at Rookery Farm, Rainford (Davey *et al* 1982). In addition, waste fragments of kaolin sheet, and wood ash derived slag, some of which were encrusted onto the surface of several muffle chamber fragments. Many fragments retained traces of powdery clay across their surfaces.



Plate 20: Fragments from a muffle chamber wall

- 5.3.4 Dating of the kiln furniture was difficult to ascribe based on the limited size of the excavated sample, although it is possible that the waste derived from more than one firing. However, some indication of the development of kiln furniture is outlined by Allan Peacey in his study of pipe kiln technology (Peacey

1982), who states that the inclusion of pipe stems within the muffle walls was commonly used from the end of the seventeenth century.



Plate 21: Fragment of a bun used as a support within the muffle



Plate 22: Fragment of a prop (measuring 0.1m high) that was probably used to support a bun or saggar within a kiln

5.4 CERAMIC BUILDING MATERIAL

- 5.4.1 **Flat roof tile:** some 111 fragments of flat roof tile were recovered from the evaluation, of which only 14 were diagnostic, that is tiles retaining evidence of suspension and one of the two principle dimensions intact (Armstrong 1991, 201). The assessment was made on a visual examination of all the material recovered, information regarding the dimensions and fabric and, importantly, their method of suspension, were recorded and compared with typologies from elsewhere. Terms and methodology are based upon those used in the Humber typology (Armstrong and Armstrong 1987, 234-5).
- 5.4.2 The majority of the tile was recovered from fill **19** of pit **18** (Trench 3), and were un-diagnostic, varying in size from 60 to 100mm. Most could only be classified by either their suspension method or thickness, whilst only two retained a complete width, between 165 and 170mm, with the thickness varying between 12 and 19mm. The only suspension method noted from the assemblage were pulled nibs, of which there were 13 examples. These could then be sub-divided into simple pulled examples, four of which were recorded, seven were pulled and finger shaped, but too little remained of the two others to ascertain the exact method of construction other than that they were pulled. Nib manufacture resembles those from Hull, which favoured this type of suspension, although other methods were also in use (*op cit*, 236). Two fragments exhibited small (4mm) semi-circular holes on the moulded edge of the tiles.
- 5.4.3 The majority of the fragments were in a similar orange to red fabric with poorly sorted quartz sand and occasional larger quartz granules. Two other fabrics were noted: one was buff to brown in colour with well-sorted quartz sand and very occasional pebbles up to 6mm; the other was pink and contained abundant mortar fragments 5-6mm in size. Both fabrics were represented by two fragments. Little evidence was noted of the manufacturing process, other than a heavily sanded underside indicative of being formed in a bottomless sanded mould, and laid to dry on sanded stock tables or moulding boards (*ibid*). Occasional finger striations around the edge and striations along the length of the tile, possibly from a piece of wood used to smooth the tile, were also noted.
- 5.4.4 Dating of flat roof tile is notoriously difficult without recourse to sites where tile manufacture is well documented (Spall 2005) and, as such, only a broad date range spanning the thirteenth to sixteenth centuries can be ascribed to the Bold Lane assemblage. The majority of the material was recovered from pit fill **19**, which also contained post-medieval pottery. The latter was likely to date the demolition of the building from which the tile was derived. Other fragments of tile were recovered from pit fills **15**, **17**, **24** and **25** (Trench 3).



Plate 23: Fragments of flat roof tile

- 5.4.5 **Brick:** in total, five complete bricks of varying sizes were retained as representative samples of the different types of bricks encountered during the evaluation. These were recovered from cellar walls **09** and **13** in Trench 1, and the backfill of a pit **81** in Trench 5. The complete examples included three hand-made types retaining lime-based mortar with ironstone grit inclusions, indicative of eighteenth- or nineteenth-century bonding, and a machine-pressed common brick of mid- to late nineteenth-century date. The complete and near complete bricks recovered are quantified in Table 1.
- 5.4.6 **Methodology:** an assessment of the assemblage was made based on a visual scan of all the retained material. Information regarding the dimensions, shape and fabric of the material was recorded.
- 5.4.7 **Dating:** the wire-cut brick and the hand-made examples would all fit quite reasonably with a 9¼ x 4½ x 2¼-½” brick. They all, barring the machine-made example exhibited a sanded base, indicating that, like the tiles, they had been laid on a sand table within the mould. The hand-made brick recovered from Trench 5 was notable in that it displayed two distinct mortar types overlaying each other, suggesting either re-use or perhaps that the building had been re-pointed. All of the sample bricks are likely to fit within a date range spanning the eighteenth and early nineteenth centuries.

Trench	Ctx	Dimensions	Comments
1	13	219 x 106 x 73mm (Machine pressed. Red hard fired sandy fabric, with mortar adhering to brick
1	9	231 x 115 x 63mm	Hand-made. Red sandy fabric with grey mortar rich, sandy mortar adhering to brick
1	9	118 x 55mm	Hand-made. Incomplete brick. Red sandy fabric with sanded base and grey mortar rich sandy mortar adhering to brick
2		235 x 118 x 55mm	Wire-cut. Deep red fabric, with sanded base. Grey mortar rich fine sandy mortar adhering to brick
5		233 x 113 x 57mm	Hand-made. Red sandy fabric, with sanded base. Evidence of reuse as two different types of mortar adhering to brick

Table 1: Dimensions and description of complete and near complete bricks from Bold Lane

5.5 METALWORK

5.5.1 **Smithing slag:** several lumps of iron-smithing slag, together with a fragment possibly deriving from a hearth bottom, were recovered from medieval pit fills **15** and **17** in Trench 3. The assemblage was too small to provide sufficient information on the technology employed in their production, but their presence does indicate that a smithy or workshop was in operation in the immediate vicinity during the medieval period.

5.5.2 **Iron objects:** these included a heavily corroded broken tool retaining fragments of pipe stems adhered to the corrosion products, and a single nail. The tool is probably associated with the clay tobacco pipe kiln.

5.6 OTHER MATERIAL (GLASS, SHELL, STONE, COAL)

5.6.1 **Glass:** two fragments of vessel glass were recovered, including part of an eighteenth-century wine bottle, and a small pharmaceutical bottle which could date to the late nineteenth century. The fragments are of little archaeological interest, and add little to the interpretation of the site.

5.6.2 **Shell:** a single piece of oyster shell was recovered. This adds little to aid interpretation of the site.

5.6.3 **Stone:** this category comprised a single piece of worked flint from a possible tool, a small fragment of unworked limestone, and a fine-grained hard limestone fragment, resembling alabaster, which had been shaped into a cylinder similar in shape with a ferrule or napkin ring.

5.6.4 **Coal:** in total, five pieces of coal deriving from a pit (**17**) were recovered from the evaluation. It is probable that the coal was associated with fire rake-out and subsequently dumped.

5.7 ANIMAL BONE

- 5.5.1 In total, 185 animal bone fragments were recovered during the evaluation, the majority being recovered from medieval contexts. The animal bone was scanned rapidly in order to assess its condition, potential for further analysis, and the potential of site should further excavations be undertaken.
- 5.5.2 The material was identified using the reference collection held by the author. All parts of the skeleton were identified where possible, including long bone shafts, skull fragments, all teeth and fairly complete vertebrae. Sheep/goat distinctions were attempted using reference material and Boesneck (1969), Kratochvil (1969), and Prummel and Frisch (1986).
- 5.5.3 For each species or species group the following were recorded: the number of individual specimens (NISP); total number of fragments; preservation category; the number of measurable bones; the number of butchered bones; the number of mandibles or mandibular loose teeth from which the wear pattern could be described; and the number of bones from which the epiphysial fusion state could be identified. NISP and total number of fragments differ in that an NISP count joins archaeological breaks of the same bone and counts the bones as one NISP; total number of fragments counts the number of bone fragments regardless of archaeological breaks. Tooth wear and fusion data is used to assess the age of death of the principal stock animals (cattle, sheep/goat and pig). Biometrical data is used to assess the size, and in some instances, the sex ratio of the principal stock animals. The preservation categories provide a useful indicator to the general condition of the assemblage. These categories are as follows:

very poor: very fragmented bone with a highly eroded surface;

poor: bone with an eroded surface and with less than half the anatomical part present;

moderate: bone with approximately half the anatomical part present and with some erosion to the surface;

good: bone with an uneroded surface and with half or more than half the anatomical part present;

very good: a complete, or near complete, bone with little or no erosion.

- 5.5.4 ***Quantification and Preservation:*** Table 2 quantifies the number of bones by context and by phase. A fairly sizeable assemblage was recovered, considering the level of excavation that was undertaken in the five trial trenches. The sheep/goat, most likely predominantly sheep, followed by cattle are the most frequent species, although it is noted that a small number of bird and small mammal bones were recovered. The general condition of the bone is moderate to good, characterised by fragments often fragmented, but with little surface erosion (Table 3). The total number of potential tooth wear and fusion records, used to estimate the mortality profile of species, as well as the number of measurable and butchered bones is low in the collection here (Table 4). However, considering the small number of deposits excavated, greater potential exists at the site for a larger data set.

Species	Medieval							Medieval/post -medieval	Post- medieval
	Soils				Ditch 55	Pit 74	Total	Soil	Pit 18
	32	60	65	70	56	76	Medieval	31	19
Cattle	9	6	6	2		1	27	3	3
Pig	2	4	6				12		2
Sheep/Goat	7	17	13				38	1	
Sheep				1	2		3		
Dog	2	0					2		
Hare				1			1		
Roe Deer	1						1		
Cattle/Red Deer	1		1				2		
Sheep/Goat/ Roe Deer							1	1	
Medium Mammal	10	11	10	1	7		41	2	1
Large Mammal	8	12	8		1		34	5	
Unidentified Mammal	3	18					21		
Bantam					1		1		
Dom. Fowl	1						1		
Unidentified Bird		1					1		
Total NISP	44	68	44	5	11	1	185	12	6
NISP Identified to a species level	22	27	25	4	3	1	86	4	5

Table 2: Number of Individual Specimens (NISP) by species

Site	Preservation category (%)					N
	Very Poor	Poor	Moderate	Good	Very Good	
Medieval	0.0	0.0	77.5	14.4	8.0	187
Post-medieval			50	50		6

Table 3: Preservation of animal bone fragments identified to a species level

		Medieval	Post-medieval
Tooth wear	Cattle		
	Sheep/Goat	1	
	Pig		
Fusion	Cattle	6	3
	Sheep/Goat	13	
	Pig	4	2
Measurable	Cattle	6	
	Sheep/Goat	16	
	Pig	1	
Butchered	All Bone	4	1

Table 4: Tooth wear, fusion, biometric and butchery

5.7.5 Discussion: the animal bone assemblage has little potential for further analysis. However, the good condition of the bone suggests a significant assemblage may potentially survive on the site, which would undoubtedly add to the archaeozoological data set.

5.8 THE PALAEO-ENVIRONMENTAL EVIDENCE

5.8.1 Five environmental bulk samples were subject to assessment for charred and waterlogged plant remains. The study of plant remains from archaeological sites is a valuable tool in providing an understanding of the environment of an archaeological site, and it was hoped that the samples taken from Bold Lane would inform about the economy and environment around the site.

5.8.2 **Methodology:** a ten litre sub-sample from each sample was hand-floated, and the flots were collected on a 250 micron mesh and air dried. The flots were sorted with a Leica MZ60 stereo microscope and the plant material recorded and identified. The data are shown in Table 5. Botanical nomenclature follows Stace (1997).

5.8.3 **Results:** the results obtained from an assessment of the samples have indicated that there is some potential for the preservation of charred remains on the site. However, whilst there is some material that would be suitable for scientific dating, such as radio-carbon assay, the samples have little potential for analysis of plant remains.

Sample number	Ctx	Feature	Flot vol (ml)	Flot description	Plant Remains	Potential for analysis
1	15	Fill of pit 14	50	Charcoal (5), Coal (5), cinder (5),	WPR <i>Sambucus</i> (2) is it modern or fossil?	None
2	79	Fill	175	Charcoal (5), Coal (5), brick/daub	Cereal (1) oats	None
3	83	Fill of Pit / posthole 84	250	Charcoal (5), Coal (5), burnt bone (1), sand		None
4	85	Fill of Pit / posthole 86	155	Charcoal (5), Coal (5), cinder (5), slag		None
5	75	Fill of pit 74	275	Charcoal (5), Coal (2), bone	Cereals (2) charred weed seeds (1),	Possible

Table 5: Assessment of charred and waterlogged plant remains from Bold Lane, Derby. Plants recorded on a scale of 1-5, where 1 is rare (up to 5 items) and 5 is abundant (>100 items). WPR = waterlogged plant remains, CPR = charred plant remains

6. SIGNIFICANCE AND IMPACT

6.1 INTRODUCTION

- 6.1.1 The archaeological evaluation has demonstrated that the study area has considerable potential for the survival of buried archaeological remains, although it is not considered that any of these remains are of national importance that would necessitate preservation *in-situ*. However, in archaeological terms, the remains encountered during the evaluation are considered to be of regional significance, and clearly merit further, more detailed investigation in advance of the proposed development of the site.
- 6.1.2 The earliest surviving remains encountered during the evaluation date, on ceramic evidence, to the twelfth/thirteenth century, with overlying deposits representing a continuous sequence through to the twentieth century. This important stratigraphic sequence is well preserved in the eastern part of the study area, which forms the focus of archaeological interest; any early buried remains adjacent to the Bold Lane frontage were largely destroyed the construction of post-medieval cellars. However, some evidence for the presence of earlier buildings fronting onto Bold Lane was provided by an assemblage of medieval flat roof tiles recovered from the evaluation. Physical evidence for medieval activity was represented largely by several cut features that were exposed in the back plots in the eastern part of the site.
- 6.1.3 The post-medieval period was represented by physical remains exposed all parts of the site. The assemblage of clay tobacco pipes and associated manufacturing debris recovered from Trench 4, for instance, is considered to be of regional importance, whilst the cellars exposed adjacent to the Bold Lane frontage represent the development of the site during the late eighteenth and early nineteenth centuries, and are of considerable local interest.

6.2 SIGNIFICANCE

- 6.2.1 The archaeological remains exposed in the evaluation trenches are considered to be of regional significance. Whilst there have been several archaeological investigations carried out in the centre of Derby in recent years, the majority have been small scale, providing limited information on the development of the city. Moreover, the only published account of an excavation in the historic core is that of the Full Street excavation (Hall and Coppack 1972). In this context, the presence of a well-preserved medieval soil horizon in the present study area is of considerable importance in terms of its rarity value, and its potential to provide information on the character of the area during the medieval period. A detailed examination of the soil micromorphology of these layers may similarly present a unique opportunity to examine land use in this area.
- 6.2.2 The medieval buried soil was encountered in Trenches 3, 4 and 5, and was situated at depths ranging from 1.0 to 1.5m below the modern ground surface.

Several features, again of medieval date, were seen to have been cut into this buried soil, and included pits, postholes and linear ditches. One such linear feature, ditch 55 (Trench 4), is likely to have formed a property boundary that persisted as a feature in the townscape until at least the end of the eighteenth century, as it is depicted on Moneypenny's map of 1791.

- 6.2.3 There is also some potential for this horizon to yield an important assemblage of local ceramics, animal bones, iron-smithing waste, and other artefacts. The collection of animal bone recovered from medieval deposits during the evaluation, for instance, proved to be in excellent condition. A larger collection of bone from the site may allow for questions to be asked concerning the husbandry of these animals, diet of the inhabitants, and the supply of meat to medieval Derby.
- 6.2.4 The evaluation produced a small assemblage of iron-smithing waste, which was recovered largely from a medieval context. Whilst the sample was too small to provide conclusive results, its presence is nevertheless of significance, and raises the possibility that the site retains important evidence for medieval secondary iron-working.
- 6.2.5 The assemblage of clay tobacco pipes and associated manufacturing debris demonstrates clearly that there was a kiln in close proximity to building 29 (Trench 4). Evidence of pipe kiln technology is scarce in national terms (Peacey 1982), and the material recovered from Bold Lane is considered to be of regional importance.
- 6.2.6 The remains of the cellars exposed adjacent to the Bold Lane frontage are also of some archaeological interest. The remains of these cellars were seen to be well-preserved, and offer some potential to inform a better understanding of the construction techniques employed in the development of this type of building in Derby during the later post-medieval period. Similarly, whilst it is thought likely that these cellars were constructed during the late eighteenth or early nineteenth century, further investigation may allow more precise dating to be elucidated.

6.3 IMPACT

- 6.3.1 The proposed development allows for the construction of deep basements across the study area, which will inevitably have a major negative impact on the sub-surface archaeological resource. An appropriate scheme of further archaeological investigation in advance of development will therefore be required to mitigate the ultimate loss of the buried remains.
- 6.3.2 The details of any further archaeological work required in advance of development would be devised in consultation with the Derbyshire Development Control Archaeologist. In broad terms, however, it is considered likely that a programme of detailed archaeological excavation of the eastern part of the site would be an appropriate course of action to mitigate the damage or loss of significant archaeological remains during the course of the proposed development.

- 6.3.3 Detailed excavation in the eastern part of the site may be coupled with a watching brief to monitor ground-reduction works along the Bold Lane frontage. This would be intended to make a rapid record of the post-medieval cellars that occupy the western part of the site, and any islands of surviving archaeological stratigraphy that might survive between the cellars.

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APPENDIX 1: WRITTEN SCHEME OF INVESTIGATION

**Oxford
Archaeology
North**

February 2009

BOLD LANE, DERBY



ARCHAEOLOGICAL EVALUATION WRITTEN SCHEME OF INVESTIGATION

Version 2.1

Proposals

The following Written Scheme of Investigation is offered in response to a request from Mr Alan Hall, of Cre8 Management Ltd, for an initial stage of archaeological investigation of a plot of land fronting Bold Lane and George Yard in Derby.

1. INTRODUCTION

1.1 CONTRACT BACKGROUND

- 1.1.1 Planning permission has been granted for the construction of 25 apartments, retail units, a restaurant, offices and associated car parking on land fronting Bold Lane and George Yard in Derby (centred on NGR SK 3510 3640). This site falls within both the designated City Centre Conservation Area, and an Archaeological Alert Area as defined on the Derby City Local Plan proposals plan.
- 1.1.2 In order to secure archaeological interests, and in accordance with Policy E24 of Derby's adopted Local Plan, Derby City Council has attached a condition to development that allows for an appropriate scheme of archaeological investigation in advance of development. This recommendation is in line with government guidance as set out in Planning Policy Guidance on Archaeology and Planning (PPG 16, 1990).
- 1.1.3 In February 2009, Oxford Archaeology North (OA North) was invited by Alan Hall, of Cre8 Management Ltd, to submit a Written Scheme of Investigation for the required scheme of archaeological investigation. In the first instance, this will comprise a programme of evaluation trenching, which will be intended to determine the extent, depth, function, chronology and relative significance of any archaeological deposits to inform a mitigation strategy for a final stage of more detailed archaeological excavation of significant remains that will be destroyed by development. Any such final stage of excavation would be carried out in accordance with an updated Written Scheme of Investigation, which would be devised in consultation and agreed with the Development Control Archaeologist prior to implementation. The final stage of excavation would be followed by a programme of post-excavation work, including specialist finds analysis, report production, archive deposition and publication to an appropriate level, in accordance with current IfA and English Heritage guidelines.
- 1.1.4 This document has been prepared in accordance with the project brief, devised by the Derbyshire Development Control Archaeologist, and with reference to the guidelines provided by English Heritage's *Management of Archaeological Projects* (1991). It allows for the excavation of five evaluation trenches across the proposed development area, and represents an initial element of intrusive archaeological investigation of the site. It should be noted that further investigation may be necessary to satisfy the terms of the planning condition.

1.2 ARCHAEOLOGICAL AND HISTORICAL SUMMARY

- 1.2.1 The archaeological and historical background to the site is presented in a desk-based assessment that was compiled in 2006 (PCA 2006). In summary, however, the proposed development area lies within the historic centre of Derby. Various religious complexes of Saxon origin surround the site, suggesting that it is situated in or near a major centre of Saxon activity. The surrounding streets of Bold Lane, St Mary's Gate, Iron Gate and Sadler Gate appear to have medieval origins, and may date back even further. Medieval to post-medieval activity close to the study area is further demonstrated by archaeological remains consisting of deeply stratified medieval to post-medieval domestic occupation, immediately to the east. The northern, eastern and western sections of the site were not extensively developed until the nineteenth century, when many small outbuildings were constructed.

1.3 OXFORD ARCHAEOLOGY

- 1.3.1 Oxford Archaeology has over 30 years of experience in professional archaeology, and can provide a professional and cost effective service. We are the largest employer of archaeologists in the country (we currently have more than 200 members of staff) and can thus deploy considerable resources with extensive experience to deal with any archaeological obligations you or your clients may have. We have offices in Lancaster, Oxford and Cambridge, trading as Oxford Archaeology North (OA North), Oxford Archaeology South (OA South), and Oxford Archaeology East (OA East) respectively, enabling us to provide a truly nationwide service. OA is an Institute of Field Archaeologists Registered Organisation (No 17).
- 1.3.2 It is intended to co-ordinate the Derby project from our northern office in Lancaster, though the project team will use the most appropriate resources from all offices. Between our offices our company has unrivalled experience of the excavation of complex urban stratigraphy, notably from major excavations undertaken in the North at Carlisle, Wigan, Newcastle, Lancaster and Chester, each of which involved the recording of complex urban stratigraphy of extensive Roman and medieval deposits. In addition, other recent projects on urban sites have been undertaken in such northern towns as Chester, Ruthin, Warrington, Liverpool, Manchester, Preston, and Kendal. OA's experience of working hand-in-hand with developers and their construction teams on large, complex urban developments, such as The Oracle in Reading, the phased development of the Westmorland Gazette site in Kendal, the site of the former Cinema at Cirencester, and the redevelopment of Oxford Castle and prison, will enable us to ensure the successful completion of the archaeological aspects of the Derby project.

1.4 ARCHIVE DEPOSITION

- 1.4.1 The results of the archaeological evaluation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects*, 2nd edition, 1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (Walker 1990). The project archive represents the

collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

- 1.4.2 OA conforms to best practice in the preparation of project archives for long-term storage. It is intended that the archive and the excavated material be deposited with the Derby Museum and Art Gallery on The Strand, Derby, and a further copy of the archive can be made available for deposition in the National Archaeological Record. In addition, the Arts and Humanities Data Service (AHDS) online database project *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.
- 1.4.3 The material and paper archive generated from the evaluation will be transferred in accordance with the guidelines provided by *Procedures for the Transfer of Archaeological Archives* (2003).

2. AIMS AND OBJECTIVES

- 2.1.1 The main aim of the investigation will be to establish the presence or absence of any buried remains of archaeological interest within the area of the proposed development. Should any such remains prove to be present, then the evaluation will seek to characterise their character, extent, level of preservation, and significance. The results from the evaluation will provide information as to whether further investigation is required prior to the main development programme. The required stages to achieve these ends are as follows:
- to excavate four trenches across the proposed development area;
 - to produce a written report that will assess the significance of the data generated by the above fieldwork programme within a local and regional context;
 - to facilitate the implementation of a strategy that will take account of the archaeological resource of the site in the final design proposals, and satisfy the requirements of the Development Control Archaeologist.

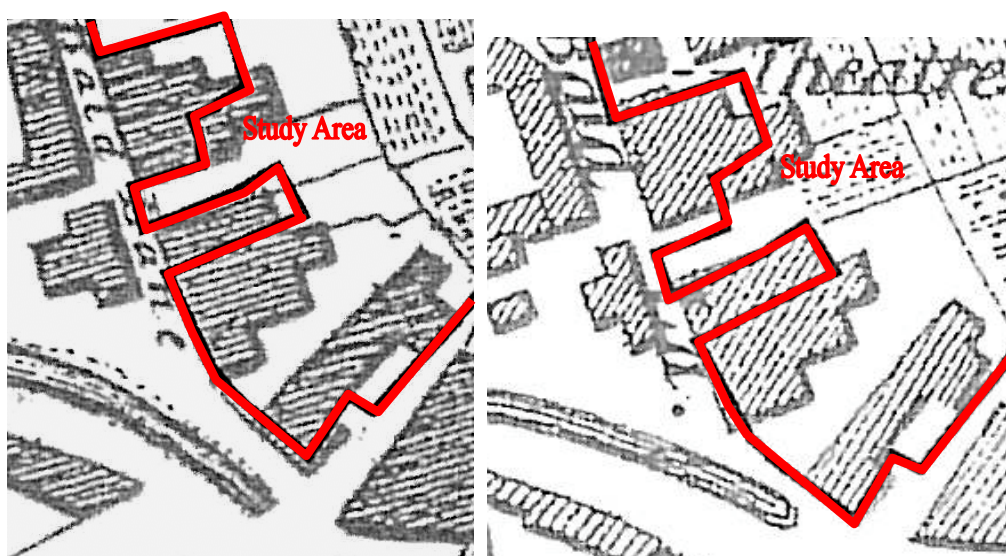
3 METHOD STATEMENT

3.1 STRATEGY

- 3.1.1 Experience has shown the importance of a close working relationship between the developer and their archaeological contractor on complex, urban development projects. Such a relationship will help to ensure the timely and successful completion of the project in an efficient and cost-effective manner, achieving high technical and academic standards, whilst meeting all the requirements of the Development Control Archaeologist's brief and fulfilling all the developers archaeological obligations.
- 3.1.2 The integration of the archaeological process into the initial programme of site clearance will ensure that the character and extent of buried archaeological remains on the site are identified at an early stage in the development programme. This will allow an appropriate mitigation strategy to be devised and implemented well in advance of the main construction programme.

3.2 EVALUATION

- 3.2.1 **Trench Location:** it is proposed that the archaeological evaluation comprises the excavation of five evaluation trenches across the site, and will be carried out immediately upon completion of the demolition of the extant buildings. Each of the trenches will be excavated to a length of 10m, and to a width of 3m, providing a total area of investigation of 150 square metres, although the trenches will be stepped out should deep stratigraphy be encountered. The trenches will be placed in the positions shown in Figure 1, pending any on-site restrictions such as modern service trenches. The rationale for the location of each trench is based on the information provided by historic map regression, and is intended to sample the range of conditions on site:
- *Trench 1:* this trench will be aligned south-east/north-west adjacent to the Bold Street frontage, in the southern corner of the study area. The position of the trench straddles two blocks of buildings depicted on Moneypenny's map of 1791, which provides the earliest reliable survey of the site. Trench 1 also crosses a former access route that is consistently shown as being undeveloped on the sequence of historic maps. Trench 1 should thus provide an opportunity to examine any surviving buried remains of post-medieval buildings, and a potentially undisturbed stratigraphic sequence close to the street frontage;
 - *Trench 2:* this trench will be placed north-east/south-west in the north-western part of the site. It will be targeted upon the northern edge of a building shown on Moneypenny's map of 1791, and another parcel of land that seemingly remains undeveloped until the 1830s.



Extracts from George Moneypenny's map of 1791, and Brayley's map of 1806

- *Trench 3:* this north-east/south-west-aligned trench will be placed some 15m to the north-east of Trench 1, and will be targeted upon a part of the study area that does not appear to have been developed until the mid-twentieth century; it is shown to have formed a courtyard on the sequence of historic maps. The east end of the trench is intended to incorporate part of a building depicted on Moneypenny's map; this map be the same block of buildings as the small, probable single-roomed cottages depicted on nineteenth-century Ordnance Survey mapping.
- *Trench 4:* this trench will be aligned north-west/south-east, and will be placed in the back plots. The trench will also investigate a block of early nineteenth-century buildings, that map represent single-roomed cottages.
- *Trench 5:* this trench will be aligned east/west across the northern part of the site. The eastern part of the trench is targeted upon the rear portion of a building shown on Moneypenny's map, and named as a theatre on Brayley's map of 1806. The western part of the trench will investigate land that does not appear to have been developed until the twentieth century, and even then only partially.

3.2.2 **General Methodology:** excavation of the uppermost levels of modern overburden/demolition material will be undertaken by a machine fitted with a toothless ditching bucket to the top of the first significant archaeological level. The work will be supervised closely by a suitably experienced archaeologist. Thereafter, all deposits will be cleaned manually to define their extent, nature, form and, where possible, date. Spoil from the excavation will be stored adjacent to the trench, and will be backfilled upon completion of the archaeological works. Once significant archaeological deposits have been exposed, further excavation will be carried out by manual techniques, proceeding in a stratigraphical manner. Pits and postholes will, in general terms, be subject to a 50% by volume controlled stratigraphic excavation, thereby providing a full vertical section for examination and recording. The remainder of the feature, should it prove necessary to be removed in entirety,

will then be excavated quickly keeping only that dating evidence which is securely derived from the feature in question.

- 3.2.3 Linear cut features, such as ditches and gullies, will be subject to a maximum of 20% by volume controlled stratigraphic excavation, with the excavation concentrating on any terminals and intersections with other features which would provide important stratigraphic information. As with pits and postholes, should it prove necessary to remove the remainder of the feature to expose underlying features and/or deposits, it will be excavated quickly.
- 3.2.4 Extensive linear deposits or homogeneous spreads of material will be sample excavated by hand to a maximum of 50% by volume. If features/deposits are revealed which need to be removed and which are suitable for machine excavation, such as large-scale post-medieval dump deposits, then they would be sample excavated to confirm their homogeneity before being removed by machine. Any such use of a mechanical excavator will be agreed in advance with the Development Control Archaeologist.
- 3.2.5 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by the Centre for Archaeology of English Heritage (CfA), with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.2.6 **Context Recording:** the features will be recorded using *pro-forma* sheets which are in accordance with those used by CfA. Similar object record and photographic record *pro-formas* will be used. All written recording of survey data, contexts, photographs, artefacts and ecofacts will be cross referencable from *pro-forma* record sheets using sequential numbering. The contextual details will be incorporated into a Harris matrix, which is normally generated using specially designed ArchEd matrix generation software.
- 3.2.7 **Photography:** a full and detailed photographic record of individual contexts will be maintained and similarly general views from standard view points of the overall site at all stages of the excavation will be generated. Photography will be undertaken using 35mm cameras on archivable black and white print film as well as colour transparency, and all frames will include a visible, graduated metric scale. Extensive use of digital photography will also be undertaken throughout the course of the fieldwork. Photographs records will be maintained on special photographic *pro-forma* sheets.
- 3.2.8 **Planning:** archaeological planning will be undertaken using a combination of manually-drafted drawings and instrument survey, and the data will be digitally incorporated into a CAD system. All information will be tied in to Ordnance Datum. The precise location of each excavation trench, and the outline of all archaeological features encountered, will be surveyed by EDM tacheometry using a total station linked to a pen computer data logger. This process will generate scaled plans within AutoCAD software, which will then be subject to manual survey enhancement. The drawings will be generated at

an accuracy appropriate for 1:20 scale, but can be output at any scale required.

- 3.2.9 All excavated sections across individual features will be drawn using manual techniques, and for the most part will be generated manually at a scale of 1:10. Pending the type of shoring to be used by the main contractor, the sections of the trenches will similarly be manually drafted, although a total station has proved to be a cost effective tool for drawing very long sections.

3.3 FINDS

- 3.3.1 Finds recovery and sampling programmes will be in accordance with best practice (current IFA guidelines) and subject to expert advice. OA has close contact with Ancient Monuments Laboratory staff at the Universities of Durham and, in addition, employs in-house artefact and palaeoecology specialists, with considerable expertise in the investigation, excavation, and finds management of sites of all periods and types, who are readily available for consultation. Finds storage during fieldwork and any site archive preparation will follow professional guidelines (UKIC). Emergency access to conservation facilities is maintained by OA North with the Department of Archaeology, the University of Durham.
- 3.3.2 Neither artefacts nor ecofacts will be collected systematically during the mechanical excavation of the overburden unless significant deposits, for example clay pipe waster dumps, are encountered. In such an eventuality, material will be sampled in such a manner as to provide data to enhance present knowledge of the production and dating of such artefacts, although any ensuing studies will not be regarded as a major element in any post-excavation analysis of the site. Other finds recovered during the removal of overburden will be retained only if of significance to the dating and/or interpretation of the site. It is not anticipated that ecofacts (*eg* unmodified animal bone) will be collected during this procedure.
- 3.3.3 Otherwise artefacts and ecofacts will be collected and handled as per specification. All material will be collected and identified by stratigraphic unit. Hand collection by stratigraphic unit will be the principal method of collection, but targeted on-site sieving will serve as a check on recovery levels. Objects deemed to be of potential significance to the understanding, interpretation and dating of individual features, or of the site as a whole, will be recorded as individual items, and their location plotted in 3-D.
- 3.3.4 Finds will be processed and administered at regular intervals (on a daily basis) and removed from the site. All finds will be treated in accordance with OA standard practice, which is cognisant of IFA and UKIC Guidelines. In general this will mean that (where appropriate or safe to do so) finds are washed, dried, marked, bagged and packed in stable conditions; no attempt at conservation will be made unless special circumstances require prompt action. In such case guidance will be sought from OA North's consultant conservator, Karen Barker.

3.3.5 All waterlogged finds will be treated as appropriate. In the case of large deposits of waterlogged environmental material (*eg* unmodified wood), advice will be sought with the OA North consultant with regard to an appropriate sampling strategy.

3.3.6 Any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996.

3.4 ENVIRONMENTAL SAMPLING

3.4.1 A programme of palaeo-environmental sampling will be carried out during the evaluation in accordance with the guidelines provided by English Heritage (2002). The sampling programme will proceed under the guidance of the in-house palaeo-environmental expertise (Elizabeth Huckerby). Samples will be collected for technological, pedological and chronological analysis as appropriate. Particular attention will be paid to the recovery of environmental evidence of Saxon or medieval date.

3.4.2 The contexts will be sampled as appropriate, subject to palaeo-environmental survival, and an assessment of the samples will be undertaken by Elizabeth Huckerby as part of the assessment stage of the *MAP2* programme. In the event of substantial cultivation horizons being encountered, particularly those constituting a 'dark earth', monolith, in addition to bulk, samples will be taken, which will be assessed for pollen and plant macrofossils.

3.4.3 Bulk (30 litres) samples will be taken from all sealed pit fills, and particularly from any discrete fills within single pits, which may provide evidence for a change in function. Attention will also be paid to the identification of insects, particularly within waterlogged deposits, and a sampling strategy shall be devised accordingly.

3.4.4 It is proposed that the floatation of suitable samples be undertaken off site following completion of the fieldwork. OA North has full access to the laboratory facilities of the Institute of Environmental and Biological Sciences at Lancaster University, where assessment would be undertaken.

3.4.5 Bone recovered from stratified deposits will be subject to assessment, and analysis will be limited to material that can provide metrical, ageing or sex information. Attention will be paid to the collection of small animal bones from stratified contexts, and to the retrieval of fish bones and molluscs from rubbish pits.

3.5 BURIALS

3.5.1 Human remains are not expected to be present, but if they are found they will, if possible, be left *in-situ*, covered and protected. The remains will then be subject to a formal appraisal by an appropriate specialist, which will inform the Development Control Archaeologist as to whether the remains merit further study. If removal is necessary, then the relevant Department of

Cultural Affairs permission will be sought, and the removal of such remains will be carried out with due care and sensitivity, as required by current legislation.

- 3.5.2 All human remains will be recorded using OA skeleton recording forms. The grave cut and/or coffin and contents will be recorded in plan at 1:20. Significant details of any grave goods, should they be discovered, will be planned at 1:10. Photography will be used to provide a further detailed record of the skeleton.

3.6 MONITORING

- 3.6.1 During the course of the fieldwork, it is anticipated the Development Control Archaeologist will undertake monitoring visits. The Development Control Archaeologist will be given at least two weeks prior notice of the commencement of fieldwork. No backfilling of trenches will be carried out without the approval of the Development Control Archaeologist.

3.7 POST-EXCAVATION AND REPORT PRODUCTION

- 3.7.1 A report detailing the findings obtained from the evaluation will be prepared upon completion of the fieldworks. This report will include:

- Non-technical summary
- Introductory statement
- Aims and purpose of the archaeological mitigation
- Method
- An objective summary statement of results
- A full, phased stratigraphic discussion of the archaeological features
- An interpretative discussion of the results, placing them in a local and regional context
- The results of analyses of artefacts and ecofacts carried out by suitable specialists
- A detailed context index
- Supporting illustrations and plans at appropriate scales
- Supporting data – tabulated or in appendices
- Digital or scanned photographs
- Index to archive and details of archive location
- References
- A copy of the Project Brief

- 3.7.2 OA North accords with best practice for the analysis of the excavation results in accordance with the guidelines of *MAP2*, should a stage of detailed

excavation be considered appropriate on the basis of the results obtained from the evaluation. This would involve an assessment of the data-set generated by the excavation, followed by a review of the excavation archive to establish the potential for further analysis. This assessment would take place in close consultation with the client and the Development Control Archaeologist, and the report format will also be agreed at this stage of the work. An appropriate programme of analysis should then be undertaken to prepare a research archive, as detailed in Appendix 6 of *Management of Archaeological Projects*. The Harris Matrix, largely produced during the excavation programme will be completed and checked as part of the assessment. The Assessment would involve the compilation of a brief archive report, detailing the stratigraphic history of the site, and the outlining the significance of the structural, artefactual and environmental evidence. It is not possible to provide a finite quotation of costs until the results of the assessment are known. A provisional programme of post-excavation analysis is proposed, on the basis of the anticipated recovery of material from the excavation; however, the extent of the programme can only be reliably assessed on completion of the fieldwork. The proposed programme anticipates analysis of the artefactual evidence and of the site stratigraphy leading to the production of a final report.

3.8 PUBLICATION

- 3.8.1 A summary of the project, with selected drawings, illustrations and photographs, should be submitted within two years of the completion of the project to Derbyshire Archaeological Journal for publication.

3.9 OTHER MATTERS

- 3.9.1 In order to undertake the required archaeological works and in line with the integrated approach to this project, OA will require the following items to be supplied and supported by the main contractor:
- Site welfare facilities (toilets and canteen hut);
 - Secure tool storage facility;
 - Site office¹;
 - Plant (mechanical excavator²) and drivers;
 - Shoring for excavations beyond safe levels. In the first instance, however, the trenches would be stepped out to allow for deeper excavation, and shoring would only be required should this approach prove impractical;
 - Fencing/barriers for deep excavation

¹ Use of an office will be required for paperwork/meetings etc and will require electric for computers/survey equipment.

² A large toothless bucket and breaker will be required

- 3.9.2 The client is asked to provide OA North with information relating to the position of live services on the site. OA North will use a cable detecting tool in advance of any excavation.
- 3.9.3 Normal OA North working hours are between 9.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements.

3.10 HEALTH AND SAFETY

- 3.10.1 OA provides a Health and Safety Statement for all projects and maintains a Safety Policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (3rd Edition, 1997). OA North will liaise with the client and main contractor to ensure all health and safety regulations are met. A risk assessment will be completed in advance of any on-site works.

4 RESOURCES AND PROGRAMMING

4.1 STAFF PROPOSALS

- 4.1.1 The project team will be led by a Senior Project Manager (SPM), **Ian Miller BA, FSA**, who will be based in Lancaster. Ian has considerable experience of project managing multi-phase urban excavations in Lancaster, Wigan, Manchester, and Salford.
- 4.1.2 Ian will provide strategic project management, financial and resource management, and will co-ordinate the provision of specialist input, liaising externally with sub-contractors and internally with OA staff and managers. He will be responsible for all aspects of staff and resource logistics, ensuring the smooth running of the project programme. He will liaise with the client and the Development Control Archaeologist with regard to progress, and will maintain relationships with other contractors.

Ian can be contacted on 07717 458395.

- 4.1.2 Day to day running of the fieldwork will be undertaken by **Andrew Bates BSc, MSc** (OA North Project Supervisor). Andrew has over 10 years experience of commercial archaeology, as both a field archaeologist and an archaeozoologist. He has directed numerous programmes of archaeological evaluation and excavation in both urban and rural contexts throughout Britain. As a freelance and in-house archaeozoologist, Andrew has also been involved in the examination and stabilisation of animal bones both during the post-excavation process, and as an on site specialist.
- 4.1.3 **Christine Howard-Davis BA, MIFA** (OA North Finds Manager) would undertake the necessary finds management. In addition, she has many

years' experience of finds analysis, and is a recognised expert in the analysis of Roman and medieval metalwork and glasswork.

4.1.4 **Environmental management** will be undertaken by **Elizabeth Huckerby BA, MSc** (OA North Project Officer), who will also provide specialist input on pollen analysis/charred and waterlogged plant remains. Elizabeth has extensive knowledge of the palaeo-ecology of the North West, and has contributed to all of the English Heritage funded volumes of the Wetlands of the North West. Elizabeth will advise on site sampling procedures and co-ordinate the processing of samples and organise internal and external specialist input as required.

4.1.5 It is not possible to provide details of specific technicians that will be involved with the fieldwork at this stage, but all shall be suitably qualified archaeologists with proven relevant experience. It is anticipated that up to ten technicians will be required during the course of the fieldwork.

4.2 PROGRAMMING

4.2.1 It is proposed that the archaeological evaluation commences immediately upon completion of the demolition programme, but prior to the removal of the concrete slab that underlies the modern building.

4.2.2 The concrete slab would be broken out in the location of the evaluation trenches, with sufficient concrete being removed to allow for the widening of the trenches should this prove necessary. The breaking out of the slab will be carried out under close archaeological supervision.

4.2.3 Once the slab has been broken in the required locations, it is envisaged that the excavation of the specified trenches will be completed over a five-day period.

4.2.4 An illustrated report detailing the findings obtained from the evaluation will be completed as a draft document for the consideration and comment of the Development Control Archaeologist within six weeks of the completion of the fieldwork.

APPENDIX 2: CONTEXT INDEX

Context No	Trial Trench No	Depth (m)	Category	Description
01	1	2.6	Masonry	Twentieth-century brick structure housing fuel tanks. Comprised reddish bricks, which measured 227 x 75 x 105mm, bonded by a pale yellow mortar. The structure was seemingly built with a stretcher bond.
02	1	2.6	Layer	Fill of 03 . Gravel in-fill between cut 03 and masonry 01 .
03	1	2.6	Cut	Construction cut for masonry 01 . Comprised vertical sides and a flat base, measuring 2.3m wide and 2.6m deep, orientated in a north-east/south-west across the excavated trench.
04	1	0.80	Layer	Late nineteenth-/twentieth-century levelling deposits, with alternating bands of very dark grey, mid-grey and mid-orange brown deposits. Deposits not accessible due to depth of trench.
05	1	0.10	Floor	Late eighteenth-/nineteenth-century brick floor, bonded by a mid-grey lime-based mortar. Bricks not accessible due to depth of trench.
06	1	0.85	Layer	Late eighteenth-/nineteenth-century levelling deposits. Very dark grey in colour. Deposit not accessible due to depth of trench.
07	1	2.1	Layer	Cellar backfill. Brick rubble, the bricks of which measured 233 x 60 x 111mm.
08	1	0.85	Fill	Late eighteenth-/nineteenth-century levelling deposits. Very dark grey in colour. Deposit not accessible due to depth of trench.
09	1	0.85+	Masonry	Late eighteenth-/nineteenth-century cellar wall. Comprised a brick construction, 0.20m wide. The bricks were hand-made, measuring 233 x 60 x 111mm, bonded by a mid-grey lime-based mortar. Bonding pattern not discernible. The structure was aligned north-east/south-west, with its associated cellar to the south-east.
10	1	1.05	Layer	A dark grey, sandy gravel, representing the upper natural river gravel.
11	1	Unknown	Layer	A dark yellow gravel, representing the lower natural river gravel.
12	1	Unknown	Masonry	Late eighteenth-/nineteenth-century brick wall located in the south-western limit of excavation. The bricks measured 116mm wide and 55mm deep, length unknown. Masonry not accessible due to depth of trench.
13	1	2.0	Masonry	Late eighteenth-/nineteenth-century brick cellar wall, visible at the north-western end of the trench below the existing ground surface. The bricks were bonded by a mid-grey lime-based mortar, in an English Garden Wall bond, and measured 220 x 106 x 76mm. The cellar associated with this structure is to the north-west.
14	3	0.45	Cut	Circular pit, which measured 0.75m in diameter, comprised steep concave sides and a flat base. Pit contained slag, possible smithing hearth bases, and medieval pottery.

Context No	Trial Trench No	Depth (m)	Category	Description
15	3	0.45	Fill	Fill of 14 . Mid- to dark brown grey, firm, clay. Inclusions within deposit were less than 5% charcoal flecks, and less than 5% sub-rounded stones 30mm to 40mm in diameter.
16	3	0.16	Cut	Pit. Sub-oval in shape, with steep straight sides and a concave base.
17	3	0.16	Fill	Fill of 16 . A dark grey firm clay, with <i>c.</i> 20% sub-rounded stone and <i>c.</i> 30% charcoal inclusions.
18	3	0.69	Cut	Pit. Sub-circular in shape with straight, near vertical sides and a flat base. It measured at least 1.20m long and 0.90m wide, being only partially exposed in the trench. A possible rubbish pit.
19	3	0.43	Fill	Fill of 18 . A mid-dark brown grey silty-clay, with frequent large rounded stone inclusions and occasional charcoal flecks. Deposit deliberately back-filled into pit 18 .
20	3	Unknown	Cut	Construction cut for drain 021 . A linear feature, which measured at least 1.2m long and 0.6m wide, aligned north/south. Unexcavated.
21	3	Min 0.32	Masonry	Drain. Constructed of red brick, measuring 230 x 120 x 60mm, bonded by a light grey cement-based mortar.
22	3	Min 0.32	Fill	Fill of 20 . Comprised a dark grey brown sandy-clay, with 80% small sub-rounded stone inclusions. In-fill around drain 21 .
23	3	0.05	Fill	Fill of 73 . A dark pink, friable, sandy-clay with <i>c.</i> 30% sub-angular sandstone inclusions. A deposit of crushed or degraded sandstone mixed with clay, possibly a deposit used to cap feature,
24	3	0.16	Fill	Fill of 73 . A dark grey, firm, clay with less than occasional small to medium sized sub-angular stone inclusions. Deliberate backfill containing domestic waste.
25	3	0.19	Fill	Fill of 74 . A mid-brown, firm, clay with occasional charcoal and small rounded stone inclusions. Potentially layer 26 sunk into top of pit.
26	3	Min 0.40	Cut	Nineteenth-century drain. Linear feature, aligned north-east/south-west, and measured at least 4.0m long and 0.60m wide. Joined with brick drain 21 .
27	3	Min 0.40	Fill	Fill of 26 . A mid-dark grey, firm, clay with <i>c.</i> 75% small and medium sized rounded stone. Deliberate backfill of drain.
28	3	0.27	Layer	Natural alluvium. A dark yellow, firm, clay.
29	4	0.37	Masonry	Structure. A brick construction which measured at least 3.10m long, and 2.4m wide. The bricks each measured 240 x 115 x 67mm, bonded by a mid-grey lime-based mortar. The walls measured 0.24m wide on the north-eastern and north-western sides, but only individual bricks marked the position of the wall south-eastern side. The floor was constructed largely of half bricks set in an orange-brown sand with no mortar.

Context No	Trial Trench No	Depth (m)	Category	Description
30	4	0.19	Layer	Post-medieval soil horizon. A dark grey, friable, fine sand silty-clay containing less than 1% charcoal flecks.
31	4	0.30	Layer	Medieval and post-medieval soil horizon. A dark brown grey, friable, fine sand silty-clay with occasional small to medium sized sub-rounded stone inclusions and charcoal flecks.
32	4	0.20	Layer	Medieval soil horizon. A mid-orange grey, friable, fine sand silty-clay with occasional charcoal flecks.
33	4	0.5	Fill	Fill of structure 29. A loose, light grey, coarse sandy-silt. Occasional brick fragments, and abundant clay pipe fragments.
34	3	0.09	Cut	Posthole? A circular feature, 0.37m in diameter, with moderately steep concave sides and a concave base.
35	3	0.09	Fill	Fill of 34. A dark reddish-pink, firm, clay. Possible backfill of feature after post removed.
36	3		Void	
37	3		Void	
38	3		Void	
39	3		Void	
40	3	Unknown	Cut	Posthole. Circular feature 0.10m in diameter, surrounding <i>in-situ</i> stake or post. Unexcavated.
41	3	Unknown	Fill	Fill of 40. A mid-brownish yellow, firm, clay. Deposit surrounding stake, potentially where surrounding layers disturbed by action of pushing stake into ground. Stake measured 60mm in diameter, and at least 0.10m long.
42	3		Void	
43	3		Void	
44	3		Void	
45	3		Void	
46	3	0.26	Layer	A very dark grey, friable, fine sand silty-clay, with some soil structure. Medieval soil horizon.
47	3	0.27	Layer	A mid-orange brown, firm, fine sand silty-clay, with some soil structure. Medieval soil horizon.
48	3	Unknown	Layer	Natural alluvium. A dark yellow, firm, clay. Same deposit as 28.
49	3		Void	
50	3		Void	
51	3		Void	
52	3	0.10	Layer	Natural alluvium. A dark yellow, firm, clay. Same deposit as 28.
53	4	0.15	Fill	Fill of 54. A dark orangey grey, firm, fine sand silty-clay with rare sub-rounded stone inclusions a maximum of 80 x 70 x 45mm. A deposit of sediment eroded from surrounding topsoils.
54	4	0.42	Cut	Boundary ditch. The cut measured in excess of 3.25m long, across the trench, extending beyond the north-eastern and south-western limits of excavation. The feature was aligned north-east/south-west.
55	4	0.5	Cut	Linear. Comprised a shallow concave cut into soil 32. It measured in excess of 2.8m long, continuing beyond the south-eastern limit of excavation, and 0.5m wide.

Context No	Trial Trench No	Depth (m)	Category	Description
56	4	0.5	Fill	Fill of 55. A dark grey, friable, silty-clay with rare small sub-rounded stone inclusions and charcoal flecks.
57	4	0.05	Cut	Posthole? A circular feature, 0.2m in diameter, with moderately steep concave sides and a concave base.
58	4	0.2	Fill	Fill of 57. A dark grey, friable, silty-clay. Sediment derived from surrounding topsoils.
59	4	0.22	Cut	Recorded as a cut, but effectively where the medieval soil horizon 32 has been eroded from around ditch 54, and deposited as fill 53 of ditch 54. Irregular in shape, this area of erosion measured 2.50m wide across the ditch.
60	4	0.22	Fill	Fill of 59. A dark grey, friable, fine sand silty-clay. Formation of a soil horizon in area of erosion (see context 59), potentially the same deposit as soil 31.
61	4		Void	
62	4	0.22	Fill	Same as 60.
63	3	0.32	Layer	A mid-brown, firm, clay with some soil structure. Potential post-medieval soil horizon.
64	3	1.0	Layer	Mixed deposit or very dark grey and mid-brown sediment, predominantly clay, comprised the nineteenth-century levelling deposits of the area.
65	4	0.17	Fill	Fill of 59. A dark grey, friable, fine sandy-silty-clay with occasional small sub-rounded stone inclusions. Sediment eroded from surrounding soil horizon, 32.
66	3		Void	
67	3	0.48	Fill	Fill of 18. A mid- to dark brownish-grey, firm, silty-clay, with occasional medium sized sub-rounded stone inclusions and charcoal fleck.
68	4	0.33	Fill	Fill of 18. A very dark grey to black, loose, sandy silt. A humus rich deposit, tipped into pit.
69	4	0.25	Fill	Fill of 18. A light orange grey, firm, clay. Possibly a deposit back-filled into feature, containing no finds of inclusions.
70	4	0.13	Fill	Fill of 71. A dark grey, friable, fine sand silty-clay with occasional sub-rounded stone inclusions 40mm by 30mm by 20mm in size.
71	4	0.13	Cut	Irregular feature 0.90m in length and 0.70 wide, recorded as possible bio-turbation, but most likely the same as 59.
72	3		Void	
73	3	0.17+	Cut	Pit. Semi-oval feature, with moderately steep concave sides, which measured at least 1.3m by 1.6m in size. The pit continued beyond the southern limit of excavation. Possible rubbish pit, containing medieval pottery.
74	3	0.52+	Cut	Pit. Shape unclear, as pit continues beyond northern limit of excavation, but potentially sub-rectangular in shape. It measured at least 2.70 in length and at least 1.2m wide, truncated at its south-eastern extent by drain 26. This feature was not bottomed due to its depth and potential health and safety concerns. Potentially a rubbish pit, but may had another other primary function.

Context No	Trial Trench No	Depth (m)	Category	Description
75	3	0.1	Fill	Fill of 74 . A black, loose, silty-sand with frequent charcoal inclusions. Deposit of burnt material, such as hearth waste, into pit.
76	3	0.33	Fill	Fill of 74 . A mid- to light brownish-yellow clay.
77	5	0.25	Fill	Fill of 78 . A very dark grey, firm, fine sand silty-clay with occasional small sub-rounded stone inclusions and charcoal flecks. Sediments derived from surrounding soil horizons.
78	5	0.25	Cut	Pit or posthole. Sub-rectangular feature, 0.53 x 0.42m, with straight near vertical sides and a flat base.
79	5	0.08	Fill	Fill of 80 . A dark grey, firm, fine sand silty-clay with occasional small sub-rounded stone inclusions and charcoal flecks. Sediment derived from surrounding soil horizons.
80	5	0.08	Cut	Pit or posthole. Circular feature 0.45m in diameter, with concave sides and a concave base.
81	5	0.23	Fill	Fill of 82 . A dark grey, firm, fine sand silty-clay with occasional small and medium sized sub-rounded stone inclusions and rare charcoal flecks. Possibly a deposit backfilled into feature.
82	5	0.35	Cut	Pit.
83	5	0.11	Fill	Fill of 84 . A dark grey, firm, fine sand silty-clay with occasional small sub-rounded stone inclusions and charcoal flecks. Sediment derived from surrounding soil horizons.
84	5	0.11	Cut	Pit or posthole. A sub-circular feature, 0.44 x 0.28m, with concave sides and a concave base.
85	5	0.09	Fill	Fill of 86 . A dark grey, firm, fine sand silty-clay with occasional small sub-rounded stone inclusions and charcoal flecks. Sediment derived from surrounding soil horizons.
86	5	0.09	Cut	Pit or posthole. A circular feature which measured 0.35m in diameter, with concave sides and a concave base.
87	5	0.20	Fill	Fill of 82 . A mid-orangey grey, firm, fine sand silty-clay. Primary deposit, derived from a mix of natural alluvium and sediment from surrounding soil horizons.
88	5	Unknown	Masonry	The northern corner of a possible cellar, which continued beyond the southern limit of excavation. This wall was constructed of hand-made bricks each measuring 220 x 111 x 60mm, bonded by a light grey lime-based mortar. The north-eastern wall measured 0.60m wide, and the north-western wall 0.85m wide.
89	5	Unknown	Fill	Cellar backfill, with masonry 88 . A very dark grey coarse sandy-silt with frequent fragmented red brick inclusions.
90	4	0.35	Masonry	Foundation. Measured 0.5m wide, constructed from hand-made late eighteenth- to early nineteenth-century brick, each 230 x 110 x 60mm, bonded with a mid-grey lime mortar.
91	4	0.60	Masonry	Foundation. Measured 0.55m wide, constructed from hand-made late eighteenth- to early nineteenth-century red brick, each 230 x 110 x 60mm, bonded with a mid-grey lime mortar.

Context No	Trial Trench No	Depth (m)	Category	Description
92	4	0.67	Masonry	Twentieth-century brick and concrete footing of recently demolished garage.
93	4		Masonry	Foundation. Of a red brick construction, 1.1m long and 0.28m wide, continuing beyond the north-western limit of the trench. It was constructed from three courses of hand-made brick, which measured 240 x 115 x 67mm, bonded by a mid-grey lime-based mortar.
94	5	Unknown	Layer	Natural alluvium. A mid-orange grey clay.
95	5	0.3	Layer	Medieval soil horizon. A mid-orange grey, friable, fine sand silty-clay with occasional charcoal flecks.
96	4	Unknown	Layer	Natural alluvium. A mid-orange grey clay.
97	5	Unknown	Structure	Twentieth-century fuel tank. The tank measured 1.5 x 1.0m within the trench, housed within a brick structure, and had been covered with a light-orange medium sand.
98	5	Min 1.21	Masonry	Twentieth-century foundation. Brick construction, measuring 1.21m high and 0.40m wide within the trench. The bricks measured 230mm by 110mm by 80mm, were frogged and stamped with the letters "DK CC". They had been laid in a stretcher bond, bound by a light grey cement based mortar, on a cement base.
99	5	Unknown	Fill	Fill of 106 . Very dark grey silty-sand backfill between foundation 98 and construction cut 106 .
100	2	0.16	Cut	Stake hole. A sub-square feature, 50mm by 50mm in size, driven into natural 103 at a 30° angle inclined to the south-west.
101	2	0.16	Fill	Fill of 100 . A mid-brown silty-clay deposit derived from surrounding soil horizons.
102	2	0.20	Layer	Soil horizon. A mid-brown grey silty-clay. Potentially a thin layer of preserved soil.
103	2	Unknown	Layer	Mid-yellow brown silty-clay, natural geology.
104	2	Min 1.6	Structure	Cellars. The walls were constructed from hand-made brick measuring 233mm by 114mm by 56mm in size, bound by a light grey lime mortar. The floor was constructed of red brick measuring 224mm by in length and 52mm thick.
105	2	0.10	Layer	A mid-grey brown clay.
106	5	Min 1.21	Cut	Twentieth-century construction cut, at least 1.25m wide, with straight near vertical sides.
107	5	0.5	Masonry/concrete	Foundation. A brick construction 0.25m in height and 0.22m wide, set upon a concrete base 0.25m high and 0.58m wide. The bricks were measured 0.23m by 0.11m by 0.75m, laid as stretchers, and bound by a mid-orange brown sandy lime-based mortar. This foundation originally joined with cellar wall 89 , but was partially removed during the evaluation.
108	5	0.5	Cut	Construction cut for foundation 107 , measuring 0.5m with near vertical sides and a flat base.
109	5	Unknown	Cut	Construction cut for cellar wall 88 . Unexcavated.
110	5	1.01	Layer	Overburden. 0.3m of concrete and 0.98m of nineteenth- and twentieth-century levelling deposits.

APPENDIX 3: FINDS CATALOGUE

Tr	ORN	Ctx	Material	No	Description	Period
3	1021	15	Pottery	5	Vessels	Medieval
3	1047	17	Pottery	1	Vessel; Cistercian cup	Fifteenth-sixteenth century
3	1016	19	Pottery	10	Vessels; coarse dark glazed red earthenware platter, coarse yellow glazed white earthenware bowl	Seventeenth-nineteenth century
3	1024	23/25	Pottery	1	Vessel	Medieval
3	1025	24	Pottery	23	Vessels	Medieval
3	1034	25	Pottery	3	Vessels; porcelain cup, factory produced slipware, locally produced stoneware	Medieval/Post-medieval
4	1031	30	Pottery	2	Vessels	Medieval
4	1055	31	Pottery	4	Vessels	Medieval
4	1027	32	Pottery	10	Vessels	Medieval
4	1073	32	Pottery	1	Vessels	Medieval
4	1048	56	Pottery	2	Vessels	Medieval
4	1022	60	Pottery	8	Vessels	Medieval
4	1041	65	Pottery	4	Vessels	Medieval
4	1070	65	Pottery	2	Vessels	Medieval
4	1067	70	Pottery	2	Vessels	Medieval
3	1061	72	Pottery	1	Vessel	Medieval
3	1036	76	Pottery	10	Vessels	Medieval
3	1064	76	Pottery	1	Vessel	Medieval
5	1045	77	Pottery	1	Vessel	Medieval
5	1023	81	Pottery	2	Vessels	Medieval
5	1039	86	Pottery	1	Vessel	Medieval
5	1020	95	Pottery	1	Vessel	Medieval
	1049	U/S	Pottery	8	Vessels; glazed white earthenware Willow and Broseley patterned transfer-printed ware, dark glazed red earthenware	Medieval/Post-medieval
5	1018	U/S	Pottery	15	Vessels; Denby stoneware jug, dark glazed red earthenware bowl	Nineteenth century
3		15	Ceramic Building Material	1	Roof tile fragment	Medieval

Tr	ORN	Ctx	Material	No	Description	Period
3	1040	17	Ceramic Building Material	3	Roof tile fragments and drain	Medieval/Post-medieval
3		19	Ceramic Building Material	45	Roof tile fragments; includes four nibs	Medieval
3	1077	19	Ceramic Building Material	53	Roof tile fragments; thin varieties, few retaining more than two sides, includes six nibs	Medieval
3		24	Ceramic Building Material	2	Roof tile fragments	Medieval
3		25	Ceramic Building Material	2	Roof tile fragments	Medieval
4		30	Ceramic Building Material	1	Roof tile fragment	Medieval
5	1026	81	Ceramic Building Material	9	Roof tile and brick fragments	Medieval?
5	1043	77	Ceramic Building Material	1	Roof tile fragment	Medieval
		U/S	Ceramic Building Material	1	Roof tile fragment	Medieval
1	1000	9	Ceramic Building Material	1	Semi-complete brick. Hand-made, orange with lime mortar attached	Eighteenth /nineteenth century
1	1001	9	Ceramic Building Material	1	Complete brick. Hand-made, orange with speckled lime mortar attached	Eighteenth /nineteenth century
1	1003	13	Ceramic Building Material	1	Complete brick. Deep red machine-cut type with cement mortar adhered	Nineteenth century
2	1002	U/S	Ceramic Building Material	1	Complete brick. Wire-cut dense red with iron stone speckled lime mortar attached (235mm by 110mm by 60mm)	Eighteenth /nineteenth century
5	1004	U/S	Ceramic Building Material	1	Complete brick. Hand-made, orange with lime mortar attached (220mm by 110mm by 50mm)	Eighteenth /nineteenth century
3	1033	28	Clay Tobacco Pipe	1	Stem	Eighteenth century
3	1035	25	Clay Tobacco Pipe	1	Stem	Eighteenth century

Tr	ORN	Ctx	Material	No	Description	Period
4	1010	33	Clay Tobacco Pipe	1	Semi-complete spurred pipe	Eighteenth century
4	1046	33	Clay Tobacco Pipe	10	Bowls (7), spurs with foliage decoration and a heal	Eighteenth /nineteenth century
4	1015	33	Clay Tobacco Pipe	123	Waste material deriving from a kiln, includes; bowls (18) several with leaf seams, kaolin thin sheets (17) and 95 stems generally narrow bored varieties many retaining lead glaze vitrified within the kiln	Eighteenth /nineteenth century
4	1013	33	Clay Tobacco Pipe	224	Waste material deriving from a kiln, includes; bowls (35), kaolin thin sheets (13) and 186 stems generally narrow and medium bored types	Eighteenth /nineteenth century
4	1030	30	Glass	1	Vessel; wine bottle base	Eighteenth century
5	1019	U/S	Glass	1	Vessel; iridescent/clear pharmaceutical bottle	Post medieval
3	1050	17	Industrial Residue	5	Coal	Not dated
4	1029	32	Industrial Residue	1	Charcoal	Not dated
4	1006	33	Industrial Residue	6	Refractory fired clay kiln waste from a tobacco pipe kiln. Includes mould with intact pipes	Eighteenth century?
4	1009	33	Industrial Residue	3	Refractory fired clay kiln waste from a tobacco pipe kiln. Includes part of the kiln base	Eighteenth century?
4	1014	33	Industrial Residue	8	Refractory fired clay kiln furniture from a tobacco pipe kiln. Includes several narrow bored pipe stem fragments within the clay lumps	Eighteenth century?
3	1005	17	Industrial Residue	5	Iron-smithing slag and clinker/furnace lining	Not dated
3	1007	17	Industrial Residue	1	Iron-smithing furnace bottom	Unknown
3	1038	24	Industrial Residue	1	Ferrous slag	Unknown
4	1008	33	Iron	1	Heavily corroded tool with clay tobacco pipe attached, probably associated with the clay pipe kiln	Eighteenth century?
4	1037	60	Iron	1	Nail	Unknown
4	1011	33	Fired Clay	3	Part of a crenellated bun, similar to a nineteenth-century example recovered in Gloucester (Peacey, AA 1982). This suggests that the Bold Lane kiln continued production into the	Nineteenth century?

Tr	ORN	Ctx	Material	No	Description	Period
					nineteenth century	
4	1012	33	Fired Clay	5	Refractory fired clay kiln furniture comprising kiln lining, a possible prop, and a kaolin fragment	Eighteenth century?
4	1032	30	Stone	1	Fine-grained limestone (alabaster?) cylinder/ferrule	Not closely dated
4	1075	60	Stone	1	Worked (?) flint	Not closely dated
4	1042	65	Stone	1	Small limestone fragment	Not closely dated
4	1056	31	Shell	1	Oyster	Not closely dated

Key: Tr = Trench; ORN = Object Record Number; C = Context; N = Count

APPENDIX 4: ARCHIVE INDEX

Record group	Contents	Comments	Box/File Number
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A	Report Final Report		1
B	Primary Fieldwork Records Trench Records Context Records & Indices Watching Brief Records		1
C	Primary Drawings Developers Plans Annotated Plans Drawing Indices Plans/Sections		1
D	Finds Box and Bag Lists		1
E	Environmental Records		1
F	Photographic Record Photographic Indices Monochrome Colour Slides Digital		1
G	Electronic Media		1

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0 25 m
1:1500 @ A4

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northnorthnorth

Figure 1: Site location

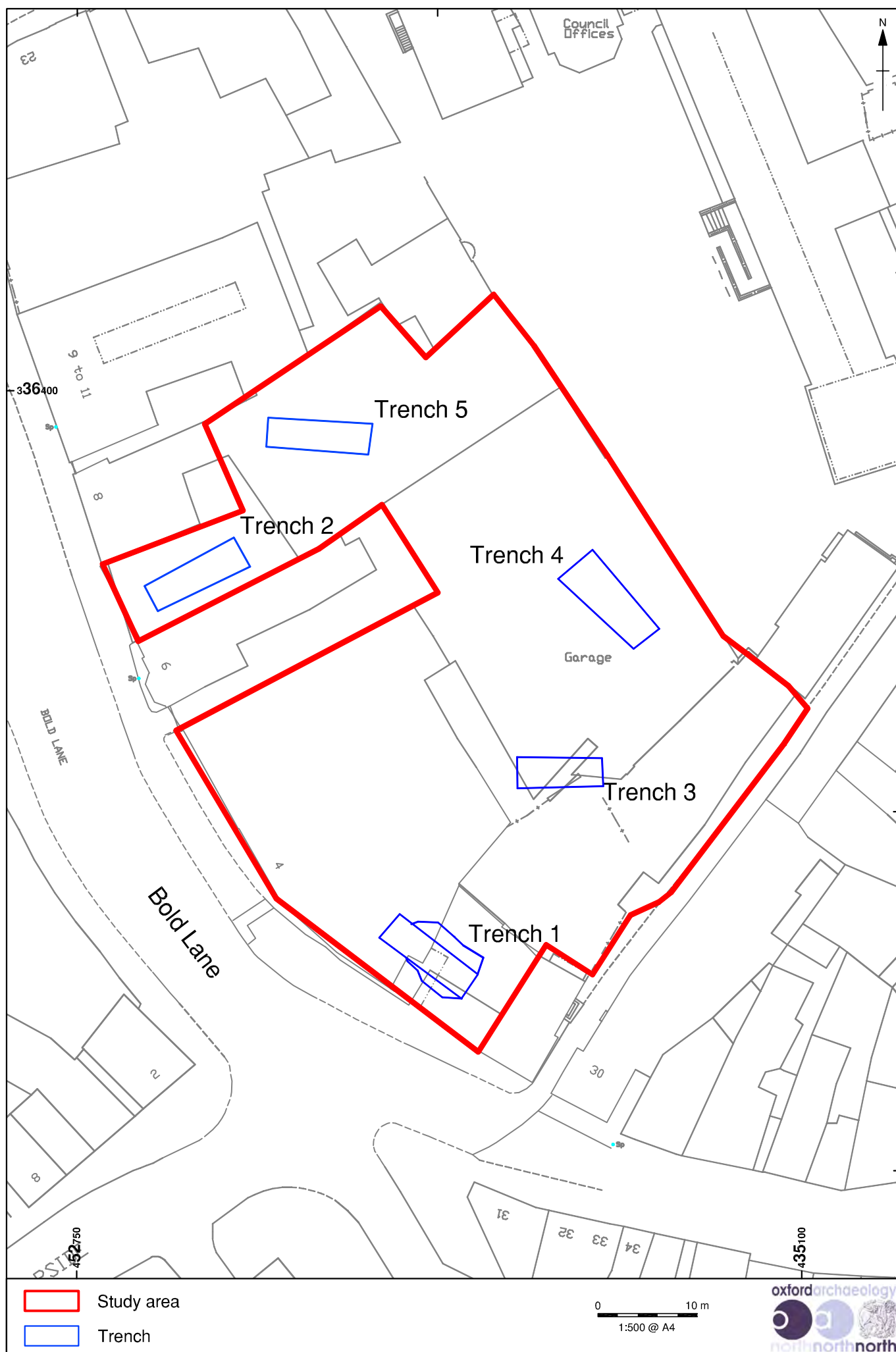
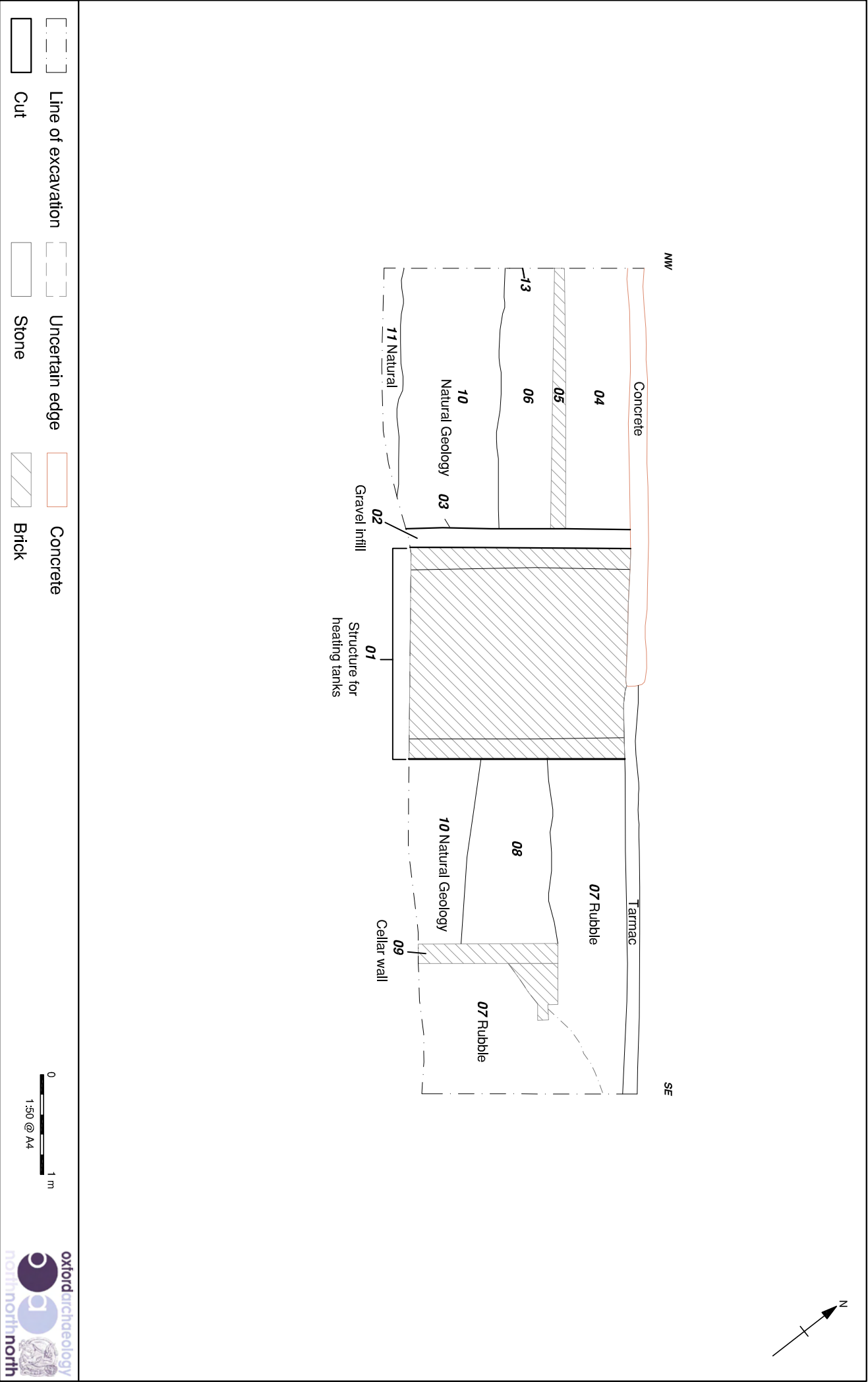
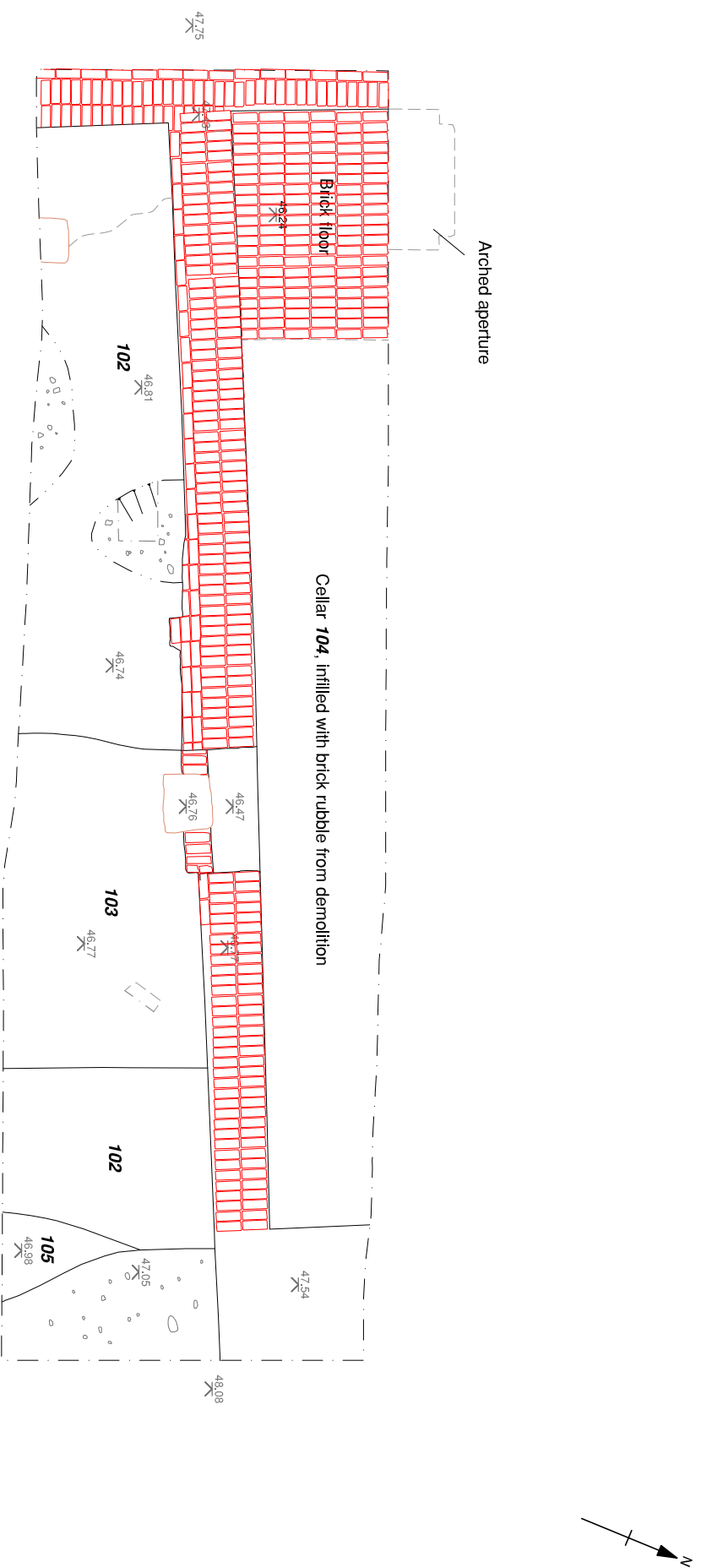


Figure 2 : Trench location plan

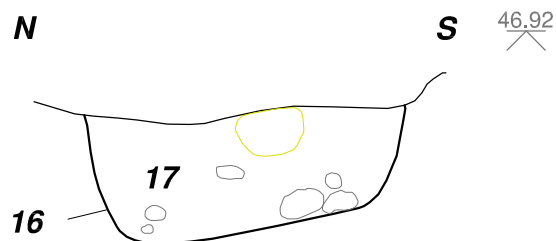




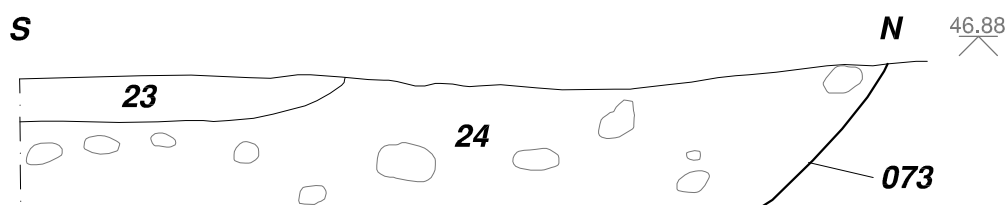
- ☐ Line of excavation
- ☐ Uncertain edge
- ☐ Cut
- ☐ Stone
- ☐ Brick



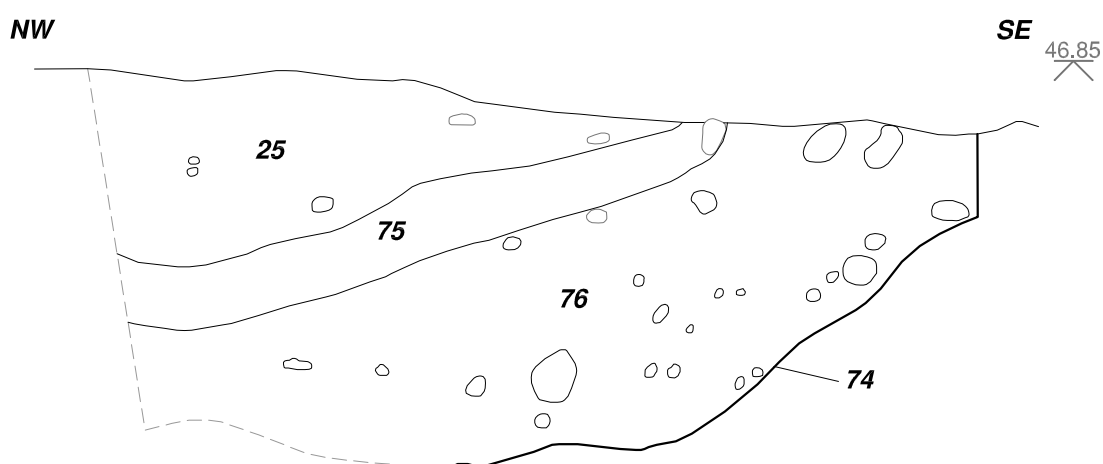
Figure 4: Plan of Trench 2



West-facing section of pit **16**



East-facing section of feature **73**

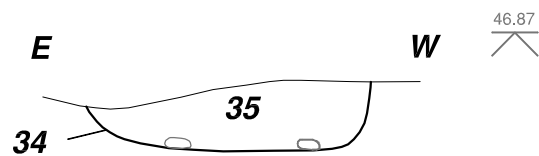


South-west-facing section of feature **74**

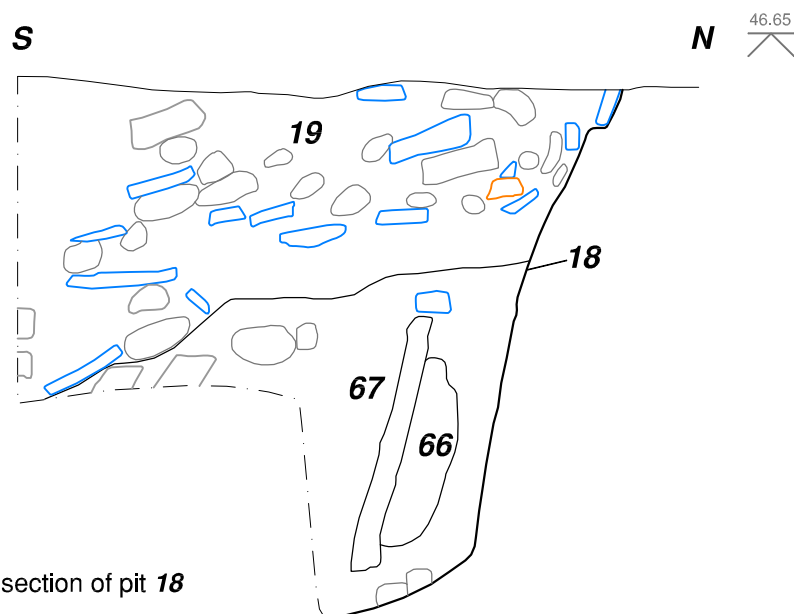
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Figure 6: Sections of features **16**, **73**, and **74**, Trench 3



North-facing section of pit **34**

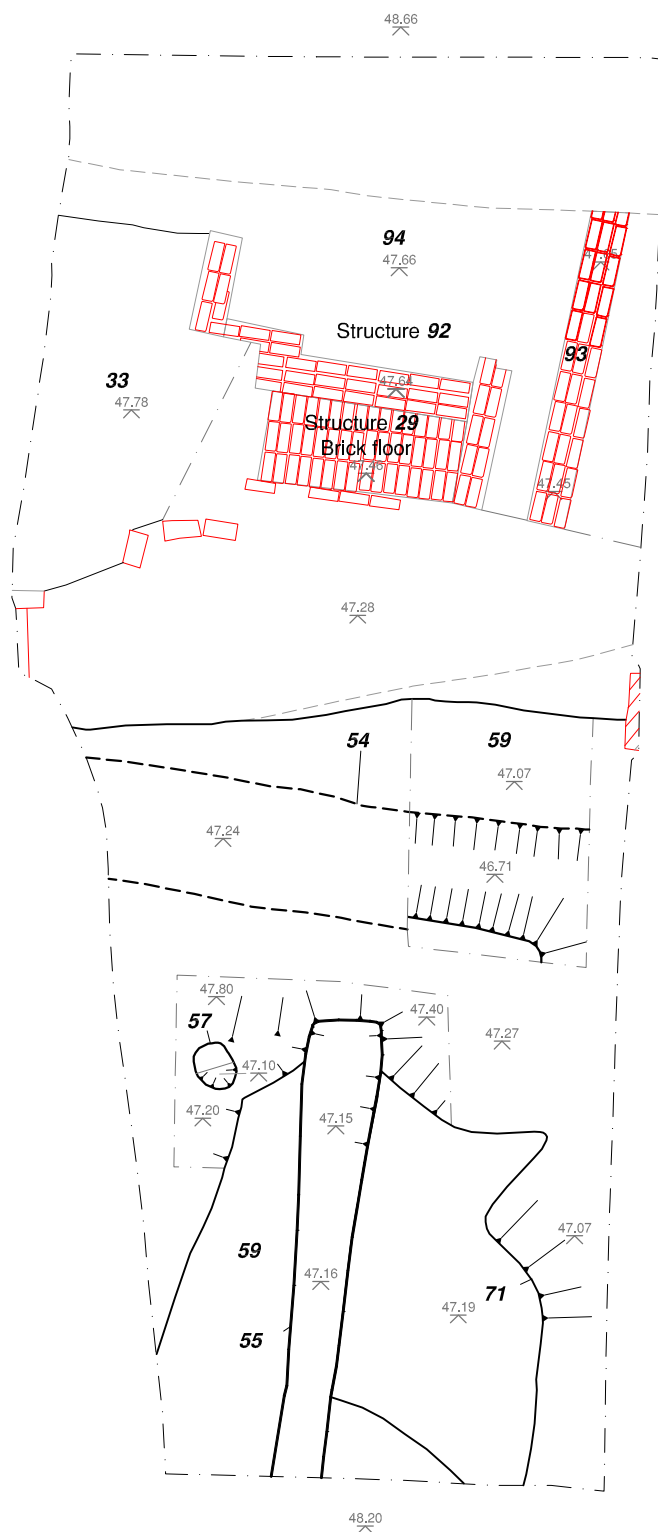
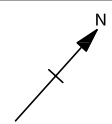


East-facing section of pit **18**

0 0.25 m
1:10 @ A4

- | | | | | | |
|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|---------|
|  | Line of excavation |  | Brick |  | Pottery |
|  | Cut |  | Stone |  | Tile |

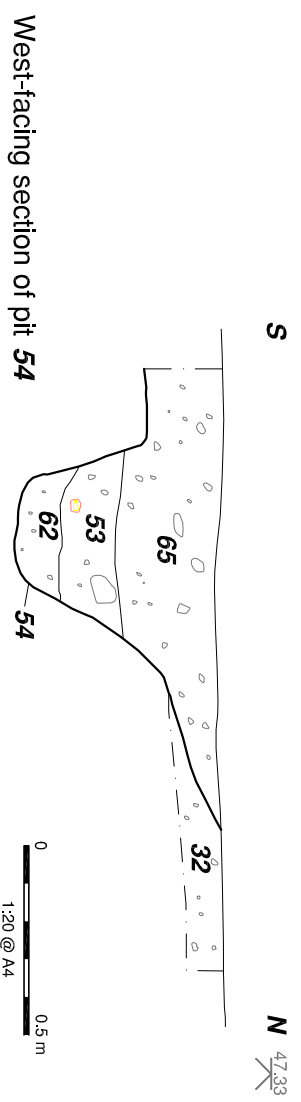
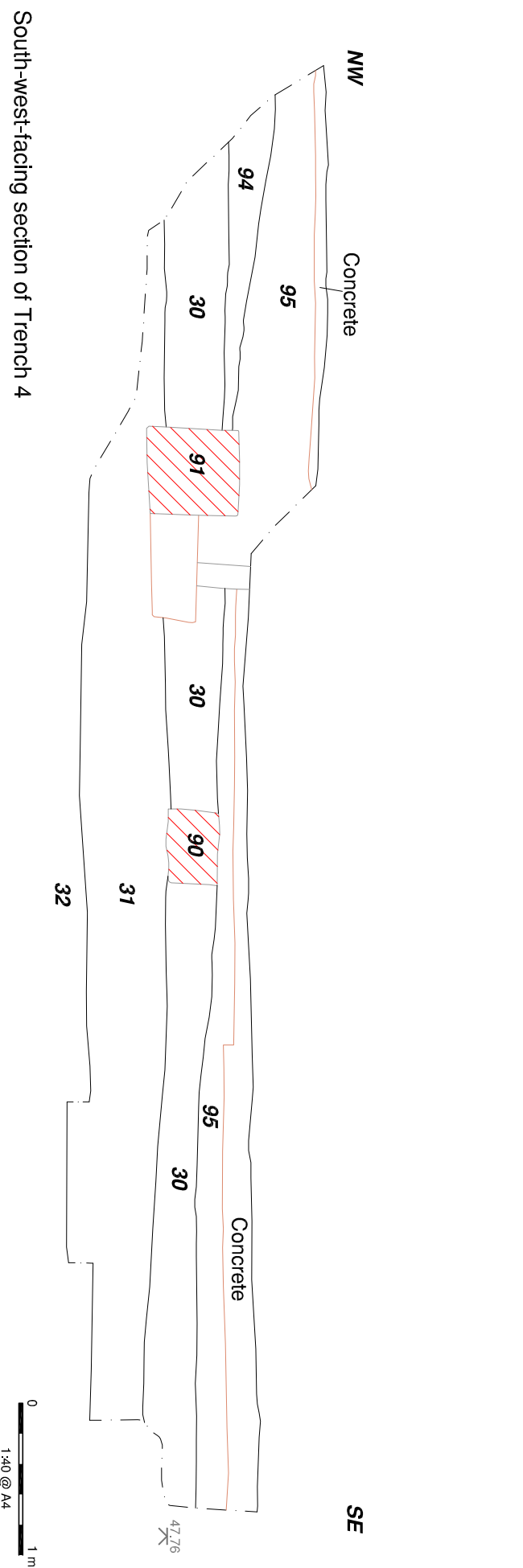
Figure 7: Sections of features **34** and **18**, Trench 3



- | | | | |
|--|--------------------|--|----------------|
| | Line of excavation | | Uncertain edge |
| | Cut | | Brick |

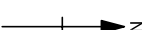
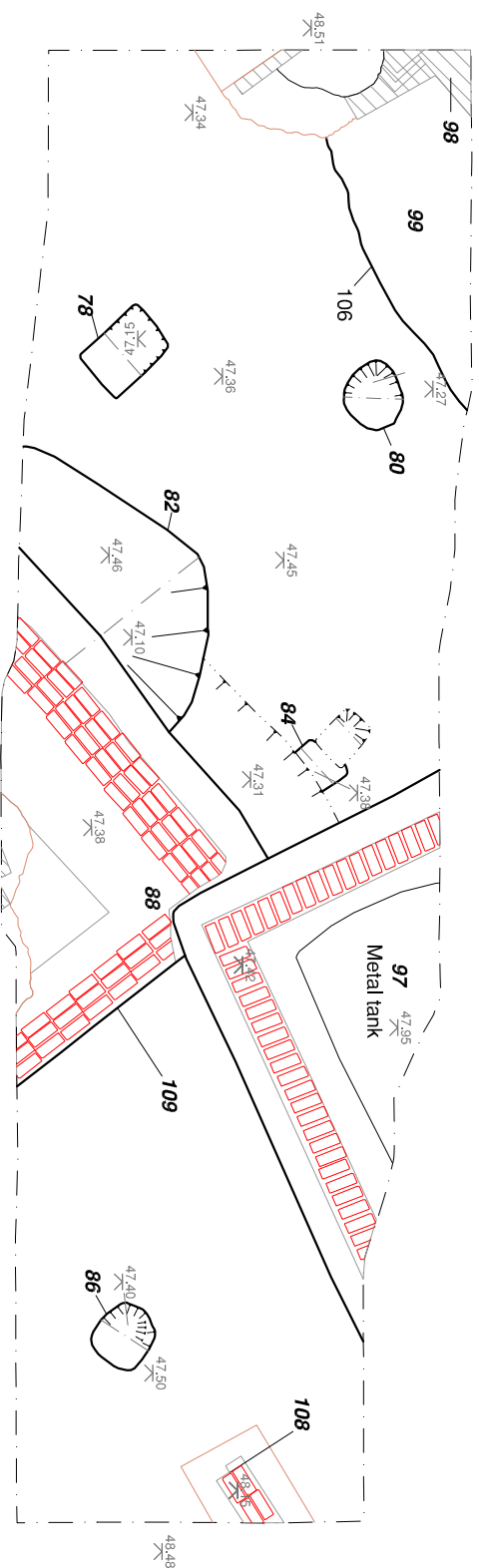
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1:50 @ A4

Figure 8: Plan of Trench 4



- Line of excavation
- Cut
- Brick
- Concrete
- Bone

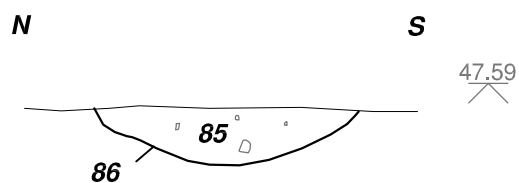
Figure 9: South-west-facing section of Trench 4 and west-facing section of pit 54



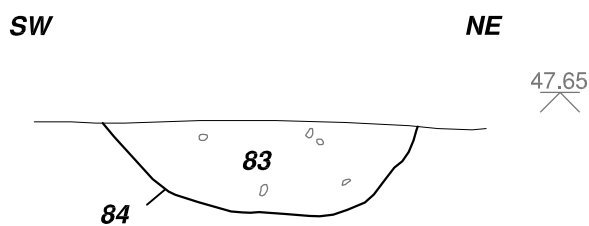
- ☐ Line of excavation
- ☐ Uncertain edge
- ☐ Brick
- ☐ Cut
- ☐ Uncertain edge
- ☐ Concrete



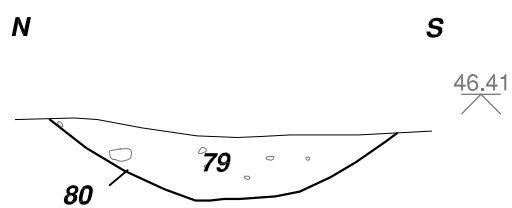
Figure 10: Plan of Trench 5



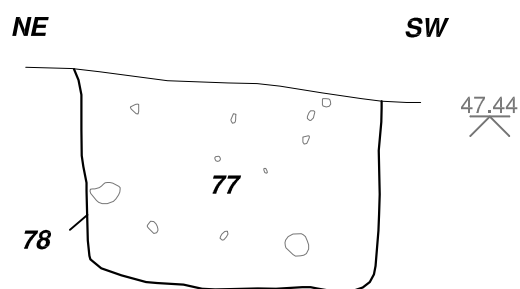
West-facing section of feature **86**



South-east-facing section of feature **84**



West-facing section of feature **80**



North-west-facing section of feature **78**

0 0.25 m
1:10 @ A4



Figure 11: Sections of features **86**, **84**, **80**, **78**, Trench 5