No 5 Dalton Square, Lancaster, LANCASHIRE

Archaeological Excavation Assessment Report

Oxford Archaeology North

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SUMMARY

Following a planning application by Lancaster City Council to demolish a single storey building and erect new offices at No 4/5 Dalton Square, Lancaster (SD 4792 6161), a programme of archaeological assessment and evaluation was recommended by Lancashire County Archaeology Service (LCAS). Oxford Archaeology North (OA North) was commissioned to undertake a programme of desk-based assessment and evaluation excavation at the site in early 2005.

The evaluation excavation located a wall which was thought to be part of the medieval Dominican Friary, within which the site is situated. On the basis of the results of the evaluation, LCAS issued a further verbal brief for an archaeological excavation to be undertaken in mitigation of the development, to include the entirety of the development area. The work was undertaken by OA North during June and July 2005. This report sets out the assessment of the results of these excavations, and includes an updated project design for further analysis of the material recovered.

Four phases of archaeology were identified in the excavations. A well-preserved buried soil horizon was located towards the rear of the site, containing late Mesolithic/Early Neolithic flints at its base, and Roman pottery and medieval material towards its top. This material was overlain by a cobbled surface and a series of pits, containing pottery, fish bone, animal bone, the shells of marine molluscs and charred remains, probably derived from those living in the Dominican Friary. A few postholes were also identified from this phase, although no structure could be discerned from them.

The third phase comprised part of the foundation and two garden features from the post-dissolution post-medieval residence, 'The Friers', or 'The Friarage', which was built within the grounds of the former Dominican Friary. Towards the end of the eighteenth century, the Friarage and surrounding lands were purchased to allow the construction of Dalton Square, and the expansion of post-medieval Lancaster. Material associated with the development of Dalton Square comprised the final phase of activity.

From each phase artefacts and ecofacts have been collected. The analysis and publication of this material, within the framework of the site stratigraphy, has the potential to facilitate our understanding of prehistoric and Roman Lancaster; the consumption patterns and landuse within the grounds of the Dominican Friary; the construction and activities of the Friarage; and the development of Dalton Square.

ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank Lancaster City Council for commissioning the project, and all staff of Keir Northern for their co-operation during the course of the project. The fieldwork was undertaken by Andy Bates, Caroline Bullcock, Vicky Bullock, Steve Clarke, Pip Howarth, David Tonks, Alistair Vannan and Pascal Eloy of OA North.

The report was compiled by Andy Bates, with all drawings completed by Christina Clarke. Assessment of the finds and environmental samples was completed by Andy Bates, Jo Dawson, Dan Elsworth, Chris Howard-Davis, Sean McPhillips, Ian Miller, and the environmental samples by Sandra Bonsall, Denise Druce, Elizabeth Huckerby and Richard McPhail. Alison Plummer managed the excavation and Mark Brennand managed the post-excavation assessment.

1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Following a planning application (reference 1/04/01450/FUL) by Lancaster City Council to demolish a single storey building and erect new offices at 4/5 Dalton Square, Lancaster (SD 4792 6161; Fig 1), a programme of archaeological assessment and evaluation was recommended by Lancashire County Archaeology Service (LCAS). The area is of proven historical and archaeological significance which will be impacted upon by the proposed development. Following the submission and approval of a project design, Oxford Archaeology North (OA North) was commissioned to undertake the work.

1.1.2 The results of the desk-based assessment, building survey and evaluation excavation were presented in an earlier report (OA North 2005). The evaluation excavation located a wall which was thought to be part of the medieval Dominican Friary, within the precinct of which the site is situated (OA North 2005). On the basis of the results of the evaluation, LCAS issued a verbal brief for an archaeological excavation to be undertaken to include the entirety of the development area. Following the submission of a project design for this second phase *(Appendix 1)*, OA North was commissioned to undertake the work in February 2005. The excavation included an area of *c* 355 m^2, divided into front and rear areas, which was completed in July 2005. This report sets out the assessment of these subsequent excavations, and includes an updated project design for further analysis. The assessment is aimed at highlighting the particular site - and assemblage-specific questions that the material is able to address directly.

1.2 LOCATION AND TOPOGRAPHICAL SETTING

1.2.1 The site lies within the eastern half of the city of Lancaster, in the Georgian development of Dalton Square, centred on SD 4792 6161 (Fig 1). The development area is situated at No 5 Dalton Square, which then consisited of both the building and a private car-park. The land is largely flat, lying at approximately 17m OD.

1.2.2 The solid geology of Lancaster consists predominantly of Silesian (Upper Carboniferous) grey-brown or reddened, medium to coarse grained sandstones of the Pendle Grit Formation, which is part of the Millstone Grit Group (Edwards and Trotter 1954, 35-6). These sandstones are thickly bedded with thin siltstone partings, but with mixed sandstone/siltstone units near the top. The drift geology for the site has been mapped as deposits of clayey-sands and brown earths (Soil Survey of England and Wales 1983).

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

1.3.1 ***Roman period:*** whilst there is a thin density of material that suggests occupation in the area from the Neolithic period onwards, the first coherent influence on the development of Lancaster occurred during the Roman period. A Roman fort was founded on Castle Hill in the AD 70s, when the conquest and pacification of northern Britain by Cerialis was already under way. The fort was certainly in existence by the last years of that decade, when Agricola, as Governor, pushed northwards along the west coast into Scotland. This was followed by a sequence of forts on the site (Shotter 1993).

1.3.2 Evidence from numerous excavations in Church Street, thought to have been the main road leading to and from the fort and linking it to the wider road network, suggests that the beginnings of extramural settlement were effectively contemporary with the foundation of the first fort, with a time lag of only a few years between the two. Few, if any, structures are known from this early activity. It was not until the early years of the second century, probably during the reign of the Emperor Hadrian, that the settlement grew and thrived. Archaeological investigation has focused on Church Street, which is, as a result, relatively well-understood (Howard-Davis *et al* forthcoming).

1.3.3 The full extent of the Roman settlement is as yet unknown, but it seems to have extended almost as far as Cheapside, approximately 200m north-west of Dalton Square, and some distance south along the line of Penny Street, approximately 150m to the west of Dalton Square. Penny Street and Cheapside form the line of a Roman road which intersected Church Street at right-angles, and settlement presumably infilled the angle between the two, running westwards as far as the fort. Burials have been found in the southern part of the town, including those excavated in 1996 at Penny Street (LUAU 1996), and individual burials between King Street and Penny Street (LUAU 1997). Burials have also been recovered east of Penny Street: two skeletons accompanied by pottery were uncovered near St Nicholas Street (Penney 1981) (since demolished and replaced by St Nicholas' Arcade shopping centre) and, during building work in 1840 at St Thomas's Church, south-west of Dalton Square, a burial was recovered (LUAU 1997), which probably included the Black Burnished-ware pottery cremation urn now in the City Museum (Lancaster Priory Timeline ND). More recently, a cremation cemetery was excavated on King Street in 2001 (LUAU 2001). The position of these burials seems to imply an arc of funerary activity extending around the southern and eastern side of the settlement, dating from the second to fourth centuries AD. In 1821, Roman ceramic material, including Samian ware, amphorae and tiles, was recovered whilst digging near to the Methodist church in Sulyard Street (SD 47930 61675), immediately north of the development area. Pieces of Roman pottery have also been recovered in the development area, recorded on the county Sites and Monuments Record (SMR) as being from within the footprint of the nineteenth-century extension of No 5 Dalton Square (SMR ref 5035).

1.3.4 It seems likely that the settlement continued in existence well into the fourth century, when a drastic realignment of the fort seems to have precipitated a major contraction of the town (Howard-Davis *et al* forthcoming). Whether it

shrank progressively, as its inhabitants withdrew to the safety of the fort walls (marked today by the Wery Wall on Castle Hill) in troubled times, or was simply abandoned, is not known, but there is very little, if any, evidence for fifth-century activity beyond the fort (Shotter 1993, 102).

1.3.5 ***Medieval period:*** little is known of settlement in the area following the collapse of Roman governance. By the later medieval period, place names and documentary sources provide the main source of evidence, although excavations have also indicated the physical form of the settlement at Lancaster (Howard-Davis *et al* forthcoming; Penney 1981; White 1988). Following the Norman conquest of the area, the centre of the local Lordship was moved from Halton to Lancaster shortly after 1086 and Lancaster Castle, on the site of the earlier Roman forts, was established by 1094, along with a priory on the site of a pre-existing church (White 2001). A borough was created in 1193, with Church Street, Market Street and Penny Street being the main thoroughfares (*op cit*).

1.3.6 Domesday Book refers to two vills in Lancaster, both dependent on Halton (Faull and Stinson 1986). One is referred to as '*Chercaloncastre*', and seems to have been centred on the church site on Castle Hill. The other, *Loncastre*, was the larger, and its precise position has been disputed. Penney (1981, 14) suggests it may have been centred in the vicinity of Stonewell, St Leonard's Gate and Moor Lane, immediately north of the development area. An undated document of *c* 1200 refers to a plot of land in 'Old Lancaster' which, from its description, was clearly located to the north and east of Stonewell (*ibid*). Leland, visiting the town in the sixteenth century, states '*the old towne, as thei say ther, was almost al burned, and stood partly beyond the black Freres* [Black Friars, the Dominican Friary]. *The new town as thei ther say, builded hard by yn the descent from the Castle'* (*ibid*). Camden, writing in 1610, states: '*yet for proofe of Romane antiquity they find otherwhiles peeces of the Emperours coine, especially where Friery stood: for there, they say was the plot upon which the ancient City was planted, which the Scots …in…1322 set on fire and burnt. Since which time they have begunne to build nearer unto a greene hill by the river side…*' (cited in White 2001, 41). The principal street names in the town, however, were in place by the thirteenth century, and there is no research to support the idea that the town moved its focus subsequently (*ibid*).

1.3.7 The first documented evidence for settlement of the land around Dalton Square dates from 1260, when a friary of the Dominicans or Blackfriars was founded. The Friary was dedicated to the Holy Trinity, and lay to the east of the medieval town, with entrances to the south, from what is now South Road, and from the north in Moor Lane (White 2001, 63). The friary is thought to have housed 30 friars, and appears to have been expanded in the early fourteenth century (*ibid*).

1.3.8 The known historical records relating to the site are sparse, and there are no known pre-Dissolution plans showing the original layout of the Friary buildings. Simpson (1852, 242-3) states that, in 1801 during the construction of Sulyard Street in the 'Friarage', Edward Batty the architect reported that the remains of the friary buildings had been discovered. He reports finding 'several cells 7'6" x 6'6", also the bases and broken fragments of several large

columns, as well as large quantities of human bones and some skeletons'. The 'cells' are likely to have been in fact the south transept of the church, subdivided into a series of small chapels (White 2001, 63). In 1873, the rebuilding of the Wesleyan chapel on Sulyard Street led to the discovery of four pier bases, with one at the south-east corner still retaining its plinth; the positions of the piers suggest that they carried the tower, with a narrow presbytery and aisled nave, which is typical of the layout of friary churches. On this, and subsequent occasions, fragments of sculpture, including part of an effigy of a knight, window-mouldings and floor tiles, were also found (White 2001, 63). In 1892, two sections of medieval window tracery were donated to Lancaster Museum by the trustees of the Wesleyan Methodist Chapel, again confirming this as the site of the Friary church (Penney 1982a).

1.3.9 Simpson (1852) also reports that, during the construction of a drain in Sulyard Street in the mid-nineteenth century, a section of glazed and decorated medieval tile pavement, presumably paved areas of the choir (Penney 1982b), was uncovered, described as 'tiles, bearing various devices, in a rough character, but evidently formed to be joined, and thus make one large pattern' (Simpson 1852). A section of this pavement was also uncovered in 1801 during works on the same street. In 1981, 94 fragments of medieval floor tiles were found at No 7 Dalton Square, probably not *in situ* but displaced during eighteenth-century landscaping activity. During the early part of the twentieth century, 31 fragments were collected from the same area (Penney 1981, 19). Several silver coins of Edward I (1272-1307) are also reported to have been found whilst excavating a cellar on Dalton Square (SMR ref 5033); the grid reference given by the SMR places these coins in the area of the nineteenth-century extension to No 5 Dalton Square. White (2001, 65) states that if, as suggested, the church lay under, and north of, Sulyard Street, then the conventual buildings lay to the south, in the area defined by Nos 4 and 5 Dalton Square. In 1950, Docton recovered a font in white sandstone 'at a depth of about four feet' during excavations for the car-park to the rear of No 5 Dalton Square, and stated 'there is no doubt but that part of the Friarage stood there' (Docton 1971, 59).

1.3.10 One of the few buildings known to exist with any certainty is the chantry chapel. This chapel is recorded in the Friary, and was a place where priests prayed for the souls of the founder and his family (White 2001, 62).

1.3.11 After the foundation of the Friary in 1260, the friary lands expanded, as demonstrated by several documented donations of land. The first in 1300 was a burgage and garden in St Mary's Street (now Church Street) donated by Simon de Lancaster; in 1312, Master William of Lancaster received licence to donate a rood of land to the friary, and by 1319 a further two acres of land had been taken in (White 2001, 63). The friars would also have owned sundry property around and outside of the town, such as land at Edenbreck, and Friar's Moss near Quernmore which was sold in 1556 (*ibid*).

1.3.12 In 1322, the Scottish raids on Lancaster are recorded as having had little effect on the Friary, as the precinct wall kept the attackers out and the buildings escaped damage (White 1990, 2). In the fifteenth and sixteenth centuries, three Priors from the Friary are recorded by name: John of Lancaster in 1410; Richard Beverley in 1523; and Galfrid Hesketh in 1533 (White 2001, 63).

1.3.13 The area of the Friary precinct, covering 12 acres (White 2001, 62), was originally bounded approximately by Penny Street to the west, Gage Street and Moor Lane to the north, Bulk Street to the east, and Quarry Road or George Street to the south. Binns' map of 1821 shows short stretches of the precinct wall surviving east of Bulk Street, south of Quarry Road, and north of Gage Street (Penney 1981, 19); the latter two stretches are described by Simpson (1852, 242) as having 'a kind of coping raised on flags; the building is of a very rough character, but the mortar . . . is very hard'. The outline on Binns' map is identical to that shown on Mackreth's map of 1778 (without the developments around Dalton Square), and on the plans for Dalton Square drawn up in 1783, and must represent a fairly exact outline of the Friary's precinct wall. The precinct wall respected the eastern side of the burgage plots of Penny Street, clearly demonstrating that they were laid out by this time (White 2001, 53). The precinct would have contained orchards and gardens, with the Friary church, possibly with a cloister, and domestic buildings at the centre (*ibid*).

1.3.14 Many townspeople chose to be buried in the friary precinct, instead of the priory or surrounding parish churches. In this way they provided income to the friars, who prayed for the souls of the dead, and denied fees to the local parish churches. It is recorded that, in 1513, Brian Tunstal of Thurland Castle, and in 1523, Edward Stanley, Lord Monteagle, left money in their wills for masses to be said for their souls (White 2001, 63). Two extended skeletons were uncovered on Messrs Hadwens' property on Dalton Square in 1793, and the Methodist chapel built on Sulyard Street in 1806 was built 'on a piece of ground formerly occupied as part of the burying ground of the Dominican Friars' (Clark 1807). In 1981, the skeleton of a male around 40 years of age was found approximately eight feet below street level near the corner of Friary Street and Sulyard Street (Penney 1981). The Dominican cemetery is therefore thought to lie between Sulyard Street and Moor Lane to the north of the site (Penney 1981, 20; White 2001, 64).

1.3.15 In 1538, Bishop Richard Devereux, agent to Henry VIII's minister for religion, reported Lancaster's Dominican Friary '*yet…be stondeyng in the north parte…*' (Mullett 2001, 84). At the Dissolution in 1539, the house was surrendered, and the Friary lands were sold to a courtier, Sir Thomas Holcroft (White 2001). The lands and buildings then passed successively through the Rigmaiden, Carus, and Dalton families. In 1546, John Rigmaiden was called upon '*to shew by what title he held the site of the Friar Preachers called 'Le Blak Freres' near the town of Lancaster'* (Simpson 1852, 244). A document relating to the acquisition of lands by the Carus family in 1556 refers to the 'Church, bell tower and cemetery' (Penney 1981, 20); a square-buttressed tower is shown among a range of buildings on the bottom right-hand corner of a mid-sixteenth century elevation drawing of Lancaster, which may be the only known illustration of the Friary (Penney 1982a). In 1578, Robert Dalton left in his will to his servant James Swinburne '*the seal of the Friars at Lancaster and one wind milne formerly belonging to the same*' (Penney 1982a, 1). The 'Friers' is shown on Speed's map of 1610, and as 'The Fryers' on Docton's map of 1684, is smaller than that enclosed by the precinct wall during the medieval period. Ruined buildings can be seen on Speed's map to the north-east of the main square of buildings, but they are absent by 1684,

and include a stylised representation of a church; the main square of buildings is probably the remains of a cloister (Penney 1981, 19).

1.3.16 ***Post-medieval period:*** an in-depth historical background to the post-medieval development of Dalton Square was presented in the report on the buildings' evaluation and investigation (OA North 2005). For the sake of brevity, an abridged version only is presented here. Due to the Dalton's catholic faith, the site was alienated to Thomas Carus of Halton from 1690 to 1691, but was subsequently returned to their possession, and other than this one break, the Dalton family owned the Friarage House through the sixteenth to eighteenth centuries (Penney 1982b; White 2003). The property was known as 'The Friers', or 'The Friarage', and stood within land covering the former friary precinct, and may it is possible that it incorporated part of the claustral buildings.

1.3.17 By the eighteenth century, the remains of the Dominican Friary and its precinct were seen as an obstruction to the development of Lancaster, as the precinct walls effectively stopped the eastward expansion of the town (White 1990, 2). Thus, in 1783, lots were offered for sale within a newly designed layout (White 2000, 29), which was intended to create a large London-style square with 15 elegant streets leading off from the main focus and surrounding it (White 2000, 29; White 2003, 52). The project was conceived as a united whole, with large houses facing onto the square from the east and west, and smaller houses to the north, south and at the corners (White 2000, 35).

1.3.18 Building on the square took place over a number of years, creating the present-day layout. The full scheme was never completed as planned due to a lack of demand and capital, a situation still visible within the present-day square, with several gaps or inferior buildings (White 2000, 32). The houses were designed for entertaining, with large public rooms on the ground floor and a private drawing room above (White 2000, 3). Many of the houses had a form of rear service wing, with a narrowing of the wing and a canted section to allow light to the rear rooms of the block. To the rear of the properties were coach-houses and stables, often also used as the sleeping quarters for the men-servants (maid-servants having garrets in the main house).

1.3.19 ***No 5 Dalton Square:*** No 5 Dalton Square is a typical example of this form of town house, occupying the north-west corner of the current development area. The exact date of construction of the house is not clear, but it is likely to have been prior to 1810. The house was constructed with three bays and three storeys, while the services were provided in the rear wing. The garden wall to the rear of the house, which now demarcates the car-park, was unusually formed of brick with stone 'throughs' at intervals, which suggests that it may have been hollow and heated, for espaliered fruit trees (White 2000, 24). The plot of land immediately south of No 5, between Dalton Square and Bulk Street, appears to have remained undeveloped until an amalgamation of this plot in 1862, called 'No 6' for convenience, and Number 5. The combined plots became known as No 5 from this period onwards.

1.3.35 From 1864 the property was owned by the Royal Lancashire Militia who, in 1884, sold the property to the Guardians of the Poor of the Lancaster Union (Docton 1971, 61). The premises are shown as the 'Poor Law Union Offices'

on OS mapping until between 1910 and 1931, when they became 'Public Assistance Offices'. The house served as the offices of the Lancaster Rural District Council for much of the latter half of the twentieth century, with the Board Room serving as the Council Chamber, and more recently as Lancaster Council's Housing Service.

1.4 PREVIOUS ARCHAEOLOGICAL WORK

1.4.1 Until the later part of the twentieth century, physical evidence for the position of the friary buildings had only come from chance observations during construction of Dalton Square and surrounding buildings, mostly in the nineteenth century (see *Section 3.2*).

1.4.2 The first formal excavations on the Friary were conducted in 1980-1 by Steven Penney of Lancaster City Museum, one on the site of the Methodist Chapel on Sulyard Street, and the second to the rear of No 7 Dalton Square (Penney 1982b). The excavations at Sulyard Street were conducted in the old school yard in the centre of the site, and demonstrated that all medieval stratigraphy had been removed by the construction of a sunken flagged-yard floor, approximately 1m below the level of Friar Street. Nineteenth-century wall foundations and a lane were uncovered; within the foundation trenches, five fragments of human bone were recovered, suggesting the friary cemetery was nearby. Seven medieval worked stone fragments were also recovered, built into the walls surrounding the yard, and these were removed during their demolition. Six of these were sections of tracery, and the seventh part of a column base, all clearly originating from the Friary buildings (Penney 1982b).

1.4.3 The excavations at No 7 Dalton Square (now occupied by the offices of the Inland Revenue) were conducted on a block of vacant land adjacent to the council offices immediately south of the present development area. A small trench measuring 6.5m by 2m was excavated, running east/west (Penney 1982b). The frontage of the plot had never been developed, and was annexed as a garden in the eighteenth century; the plot remained as a garden until the 1890s when it was used as a timber yard. The plot subsequently became a bus terminal between the 1920s and 1940s, then was used as a scrap yard until the 1960s (Penney 1982a). Approximately 1.5m of eighteenth- and nineteenth-century make-up deposits was identified and removed. Beneath this, a massive stone-built eighteenth-century culvert was found crossing the trench in a north/south direction, measuring over 1m in depth. This related to drainage of a tarn located 150m to the south-east of the site, and shown on Mackreth's plan of 1778. The tarn is absent from Batty's plan of 1783 but the area is named as 'Upper Tarn Field' (Penney 1982a). The drain cut through the basal three courses of a 1m wide medieval wall foundation, which was aligned in an east-north-east to west-south-west direction. From this, a further wall extended south at right-angles at the eastern end, the join obscured by the drain cut. The second wall was founded on a layer of small rounded cobbles cut into the natural subsoil, above which were massive stone blocks with a dressed outer face. The size of the stones meant that only a minimal amount of core-work was necessary. No medieval levels survived, having been removed during eighteenth-century landscaping, prior to the construction of Dalton Square (Penney 1982b). Two sherds of medieval pottery were recovered from the

foundation trench of the wall, and around 40 sherds from the eighteenth- to nineteenth-century contexts. Ninety-four whole or fragmentary sections of medieval mosaic tile flooring were found scattered throughout the deposits, although none were recorded *in situ*. It is suggested that the landscaping may have displace the tiles from Sulyard Street (Penney 1982b). The 33 motifs represented have affinities with tiles found at Norton Priory and Warrington Friary, and have been dated to 1300-25 (Penney 1982a).

1.4.2 A watching brief during the construction of the new Inland Revenue offices at No 7 Dalton Square in the 1980s revealed the remains of stone-built walls at a depth of 2m. These were not securely dated but could also be the remains of the Friary (Peter Iles, cited in LUAU 1995).

1.4.3 An evaluation by LUAU in 1995 at No 3 Dalton Square, in gardens to the rear of the property, exposed a substantial wall bonded with lime mortar and running north/south, continuing beyond the limits of excavation. The wall was covered with a deposit of crushed mortar representing the demolition of the upper elements of the wall in advance of the development of the surrounding area in the eighteenth and nineteenth centuries. It was thought to represent part of the claustral area of the Friary, possibly lying to the south of the Friary church (LUAU 1995).

1.4.4 The evaluation excavation for the present development involved the excavation of a single 5m by 3m trench, within which part of a free-standing wall buried by nineteenth-century make-up deposits was located (OA North 2005). No direct dating evidence was obtained for this construction, but it was thought at that time to be part of the claustral wall of the Dominican Friary (*op cit*).

2. ORIGINAL RESEARCH AIMS

2.1 ACADEMIC AIMS

2.1.1 The excavation was designed to investigate the development area of No 5 Dalton Square within which the survival of *in situ* archaeological deposits had been demonstrated (OA North 2005). The area of undisturbed archaeological stratigraphy observed within the evaluation trench offered a unique opportunity to excavate part of the thirteenth-century Dominican Friary of Lancaster, under modern excavation techniques. The 2005 excavation was designed to clarify and enlarge on the results of the 2004 evaluation (*ibid*).

2.1.2 The original academic aims stated prior to the 2005 excavation were:

- given the commercial nature of the project, the main aim was to excavate the totality of the known site within the area affected by development and to characterise the surviving archaeological remains present;
- another major aim was of the work was to further our understanding of the development of medieval and post-medieval landuse in this part of Lancaster.

2.2 OBJECTIVES

2.2.1 Four objectives were specified for the excavation:

- to excavate as much of the development area as possible given the constraints of health and safety;
- to establish whether structural evidence for the Dominican Friary is present at the site;
- to date the elements of the site to establish if any sequence of development is discernible;
- to relate the findings to other known friary sites both locally and within the region.

3. METHODOLOGY

3.1 PROJECT DESIGN

3.1.1 A project design (*Appendix 1*) was submitted by OA North in accordance with a verbal brief by LCAS. Following the acceptance of the project design by LCAS, OA North undertook the excavation in June and July 2005, monitored by Peter Iles, of LCAS. The work adhered to the project design and was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

3.2 EXCAVATION

3.2.1 Due to the constraints imposed by the size of the site and the quantities of spoil generated, and following consultation with LCAS, three investigative test pits were excavated under archaeological supervision, in order to establish the depth of the spoil that would be generated by the removal of the overburden. These test pits only removed nineteenth-century overburden, and were too deep to enter safely. Thus, a brief record was made from the surface. Due to the depth of the overburden and logistics of spoil removal, the site was excavated in two halves, which equated to the front and rear of the development areas.

3.2.2 The overburden of the area was removed used a 13 ton 360° mechanical excavator. All further excavation was conducted by hand. A baulk was left to maintain a safe working distance from an active water pipe which crossed the site, and a safe working distance was also maintained from all existing buildings. All features and deposits identified were excavated and recorded stratigraphically. Recording was by means of OA North's standard context recording system, based on that used by the English Heritage Centre for Archaeology, using context record, photographic record, and object record *pro-forma* sheets, with supporting registers and indices. A photographic record in colour transparency (slides), monochrome and digital formats was compiled. All features were planned by hand at a scale of 1:20 and sections of individual features were drawn separately at a scale of 1:10. The levels of all features and deposits were established from a temporary bench mark with a value of 17.26m OD, supplied by Keir Northern. The excavation grid was located with respect to the surrounding buildings and recorded using a total station and data-logger. The digital survey was transferred into a CAD system for manipulation.

3.2.3 In total, 47 environmental bulk samples, each between 1 litre and 40 litres, were collected from a selection of suitable deposits. The artefactual material was processed in accordance with OA North standard practice, which follows current IFA guidelines. This has been fully catalogued and prepared for deposition with the final archive.

3.2.4 All artefactual material was processed in accordance with OA North standard practice, which follows current IFA guidelines. This has been fully catalogued and prepared for deposition with the final archive.

3.3 ARCHIVE

3.3.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and current IFA and English Heritage guidelines (1991a). The paper archive will be deposited with the County Record Office and the material archive (artefacts and ecofacts) will be deposited with the Lancashire County Museum Service following agreement with the client.

3.4 HEALTH AND SAFETY

3.4.1 OA North maintains Safety Policies, based on the SCAUM (Standing Conference of Unit Managers) *Health and Safety Manual* (1991). In keeping with current Health and Safety at Work Regulations, prior to commencing on-site work, a risk assessment for each activity was completed. Due regard was given to all Health and Safety considerations during all aspects of the project. Service information was obtained from Keir Northern prior to the excavation and the positions of all trenches were scanned prior to excavation using a U-scan meter to detect for any live services.

3.5 THE POST-EXCAVATION ASSESSMENT

3.5.1 The aim of this assessment report is to evaluate all classes of data generated by the OA North excavation, thus enabling an updated project design to be produced, which details a programme of relevant analysis and publication. The assessment process has been designed to correspond to the objectives laid out in the guidance document *Management of Archaeological Projects, 2nd edition* (English Heritage 1991a).

4. SUMMARY OF THE EXCAVATION RESULTS

4.1 INTRODUCTION

4.1.1 An area of approximately 355m^2 was exposed and recorded during the archaeological excavation. Four broad phases of archaeological activity were identified by the archaeological investigation, and coupled with documentary and cartographic resources (LUAU 2005), are used for the purpose of this assessment (Table 1). This phasing is provisional as is appropriate for the assessment of the site, and may be redefined at a later date. A summary of the archaeological investigation in chronological order is presented here, with reference to the documentary research where appropriate.

Table 1: Summary of stratigraphic periods

Period	Description	Approximate Date
0	Glacial Till	
1	Pre-Medieval and Medieval Soil Horizon	10,000 BC to AD 1539
2	Medieval Dominican Friary	AD 1260 to 1539
3	Post-Medieval Residence, 'The Friers'	AD 1539 to 1783
4	Post-Medieval and Twentieth-Century Dalton Square	1783 to Present Day

4.2 PERIOD 1: PRE-MEDIEVAL AND MEDIEVAL BURIED SOIL HORIZON

4.2.1 A buried soil horizon was located covering all but 14m of the western end of the site. The natural till rises gently towards this western area, and it is reasonable to assume that there this soil horizon had been removed by later activity. At the north-eastern end of the site, the natural till was at its lowest elevation, with the buried soil horizon recorded as 0.3m thick at a depth of 1.83m below the level of the car park to the east of the investigated area (Fig 2). The pre-medieval buried soil horizons could be broken down into three parts (***169***, ***165***, ***178***) with a probable further accumulation or formation (***177***) in the medieval or post-medieval period (Plate 1).

4.2.2 Buried soil ***169*** comprised the interface between the natural till and ***178***, was 0.24m in depth, and contained little to no soil structure itself. Buried soil ***178*** formed a layer of subsoil, and comprised a gleyed mid-grey fine sandy silty clay deposit, with a clear soil structure. It is thought to have formed in damp or waterlogged conditions, which has prevented the oxidisation of its iron content. A deposit of stone (***165***) was recorded, stratigraphically between ***169*** and ***178***, in the north-eastern part of the site (Figs 2 and 3). Although the stones formed a concentration, the positions and angles of the individual stones was seemingly random, and they did not appear to have been laid down within a uniform pattern. The soil matrix of the deposit was identical to that of ***178***, and is thought to have formed in the same conditions, but with an influx of larger stones. A few flints were recovered from both above and below this layer, although there is no direct evidence that these stones were structural in

nature, and while it was not certain, it is suggested that they were not anthropogenic in origin.

4.3 PERIOD 2: MEDIEVAL DOMINICAN FRIARY

4.3.1 Two phases of medieval pits were located in the western part of the site (Fig 4). While several of the pits were intercutting, this broad phasing is based on the dating of the pottery recovered. They have no direct stratigraphic relationship with the buried soil horizon, which did not survive in this area.

4.3.2 In the north-western corner of the excavated area (Fig 4) was a sub-rounded pit (***85***) with a minimum diameter of 3m, and a depth of 0.74m. This pit was subsequently truncated on its eastern side by a second, sub-rectangular pit (***58***) with a length of 4.3m, and a depth of 1.14. The fills of these features comprised episodes of secondary infilling of material eroded from surrounding area, mixed with a relatively large percentage of natural sandy till, and episodes of either slumped or redeposited natural till. These deposits contained little in the way of finds, but pottery from them dated from the twelfth to thirteenth centuries. Pits ***58*** and ***85*** continued beyond the northern limit of the excavation, with only a small part of their estimated total size being excavated. The sides of pit ***85*** had a relatively gentle gradient of 2:1, but those of pit ***58*** were near vertical (Fig 5).

4.3.3 The extent of pit ***49*** was entirely within the excavated area, and as such was the most fully investigated (Plate 2). It was oval in shape, with a maximum diameter of 3.8m, and a maximum depth of 1.18m. The pit had straight, nearly vertical sides on all but the northern side, where the side of the feature declined at a relatively gentle gradient, creating a slope that would allow easy access into the feature (Fig 6).

4.3.4 All of these features are considered to be extraction pits associated with the building of the Dominican Friary. The natural till in the area contains lens of sand and gravel, the former an essential ingredient of lime mortar, and the pits have benen interpreted as quarries for this material. Further to the east the natural till comprises a sandy clay, which would not have been suitable for this purpose.

4.3.5 Pits ***9***, ***31***, ***48***, ***56*** and ***57*** form a second phase of activity, and are provisionally dated to the thirteenth or fourteenth century. Pit ***9*** was a large, sub-rounded feature, with a depth of 0.8m, a minimum diameter of 3.3m, and which continued beyond the western edge of the excavation. The northern edge of the pit was subsequently truncated by a second, rounded pit (***9***) with a maximum diameter of 1.7m, and a depth of 0.3m (Fig 6). The other three pits were located near the northern edge of the western part of the site, truncating the earlier phase of pits (Figs 4 and 5), with pit ***57*** also truncating pit ***56***. The contents of the features typically comprised limited amounts of primary infilling from the sides of the feature, followed by rubbish deposits containing pottery and shell. Pits ***31*** (Figs 6 and 7) and ***57*** contained deposits of hearth waste mixed with large quantities of shells from marine molluscs, such as edible dog whelk, oyster and mussel.

4.3.6 A cobbled surface (***108***) was located overlying buried soil horizon ***178*** (Figs 3 and 4; Plate 3) within the centre of the excavated area. The surface comprised sub-rounded water-worn stones of a maximum size of 0.12m by 0.12m by 0.08mm, with their tops worn flat from use. The stones of this surface had been affected by soil movement, so that the surface was uneven. The southern extent of this surface continued beyond the limit of excavation. The eastern extent continued beneath a baulk left *in situ* in the area of a current sewer which cut across the site, but did not appear to the east of this baulk. The original extent of these cobbles was not, therefore, identified, although it was thought to be heavily disturbed by subsequent activity.

4.3.7 Within the eastern area, buried soil ***178*** was overlain by two less structured scatters of stones (***147***), which had a sub-circular, and vaguely linear arrangement in plan (Fig 3). These stones did not have a flattened, worn upper surface, and were probably not the remnants of former cobbled surfaces. The westernmost, circular concentration had the appearance of being deliberately placed, and the stones were quite densely concentrated, although the purpose of such an arrangement was not clear. The easternmost spread was more randomly arranged, and while there was an approximate linear appearance to the stones, they were thought to be the result of clearance, possibly for horticultural purposes.

4.3.8 The cobbles were overlain by a further buried soil deposit (***177***), essentially forming the upper topsoil of the soil horizon. Although there was a distinct chronological division between the lower buried soil (***178***) and ***177***, represented by cobbled surface **147**, beyond the confines of the cobbles this division was not distinct within the stratigraphy. The upper element of the buried soil (***177***) comprised the most weathered sediments, with the strongest soil structure, and was presumably a former topsoil deposit. It was a mid orange grey sandy silty clay, with a depth of 0.38m. In the upper parts of this material both medieval and Roman pottery were recovered, but some prehistoric flints flakes and tools were present in the lower parts. The deposit (***55***) which constituted ***177*** in the area of the cobbled surface also contained frequent sub-rounded stones, which had originated from the underlying cobbles (Fig 8).

4.3.9 A single posthole (***148***) was located in the south-eastern corner of the excavated area (Fig 3). It contained a single homogeneous fill (***149***) with no clearly defined post pipe, but likely packing stones were located around its edge. The feature was recorded as below ***177*** and cutting the subsoil (***178***) of the buried soil horizon. The fill of ***148*** contained significant quantities of thirteenth-to fourteenth-century pottery, and it is likely that much of the activity associated with the Dominican Friary may form an horizon within the soil accumulation.

4.3.10 A second posthole (***15***) was located in the south-western corner of the excavated area (Fig 4), which had clearly identifiable post pipe (***16***), and packing material (***17***). No pottery was recovered from this, and it has no stratigraphic relationship with the buried soil horizon, since it did not survive in this area of the site. It could not be ascertained, therefore, whether it was associated with medieval or post-Dissolution activity.

4.4 PERIOD 3: POST DISSOLUTION RESIDENCE 'THE FRIERS'

4.4.1 Cutting into the upper part of the buried soil horizon (***177***) were part of the foundations of the 'The Friers', comprising ***123***, ***151***, ***155*** and ***160*** (Fig 9). Construction cut ***123*** was aligned in an east to west direction, with a length of 4.4m, a width of 1.2m and a depth of 0.52m. A deposit of rounded stones (***136***) had been placed along the bottom of the cut, forming a level base for a series of large, roughly hewn, sub-rectangular, sandstone blocks (***107***), which formed the foundation, or lowest course of the wall (Fig 10; Plate 4). To the immediate east, a return at the south-eastern corner (***151***) of this building was represented by a base of stone cobbles (***150***). This part of the foundation was noted as being 80mm higher than ***123***. The difference undoubtedly led to the upper courses of stone blocks being removed from ***151***, but this was not thought to be related to a difference in phase of this structure. Foundations ***160*** and ***151*** represent the same construction, but had been truncated by later drain ***127*** (Fig 9). A further construction cut (***155***) was recorded to the immediate south of the south-east corner of the building, with a basal layer of rounded stones (***154***), which would presumably have supported a wall. As the construction cut was distinct from cut ***151***, to the north, it is believed that this represented a later, southern extension to the building.

4.4.2 Two parallel linear features (***120*** and ***125***), orientated in a north to south direction, were located in the north-eastern part of the site (Fig 9). They measured 0.38m and 0.32m in depth respectively, 1m in width, and continued beyond the northern limit of excavation. Both contained thick deposits (***121*** and ***126***) of topsoil mixed with animal manure, with layers of animal bone, overwhelmingly of cattle horn cores, at their base. The top 0.1m of feature ***120*** comprised a layer of redeposit topsoil (***122***), covering the animal waste, and possibly forming a horticultural hot bed. Both of these linear features, therefore, would seem to define the extent of garden beds, both the manure and bone used to add fertility to the soil.

4.5 PERIOD 4: POST-MEDIEVAL AND TWENTIETH-CENTURY DALTON SQUARE

4.5.1 A layer of redeposited buried soil and stone (***144***) was recorded above foundations ***151***, ***155***, and ***160***, which was presumably used to infill the robbing trench after the larger stones of the foundations were removed. The stones within this matrix comprised sub-rectangular stone of a maximum size of 0.43m by 0.4m by 0.14m, with a rounded, water-worn appearance. Presumably the worked stone from the wall was taken away and utilised in other structures.

4.5.2 Several features and structures were located which related to the construction of Dalton Square, following the demolition of 'The Friers' in the later eighteenth century. Walls ***106*** and ***134*** were oriented in north to south and east to west directions respectively, and formed the plot boundaries laid down at the foundation of Dalton Square (Fig 9). Wall ***106*** belonged to the same

structure as wall ***05*** located during the evaluation (OA North 2005). The two walls used the same construction techniques, and seem to have been the same feature as the east to west orientated revetment wall of the sunken area standing at the time of excavation, which led to the basement of No 5 Dalton Square. They were constructed from roughly squared sandstone blocks measuring 0.3m by 0.13m by 0.15m, with occasional larger elements measuring 0.73m by 0.28m by 0.18m. These larger stones were used to tie the two faces of the wall together, being through-stones across the width of the wall, and projecting beyond the southern and eastern elevations respectively. The walls were roughly coursed, bonded with a friable light grey mortar, with a core of fragmented mortar and sandstone. Wall ***134*** was best preserved at the eastern limit of excavation, where it was recorded as standing 1.46m above its foundation stones, with a width of 0.58m.

4.5.3 It is evident that the area to the west of wall ***106*** was infilled to the level of the present-day Dalton Square during the initial works on the square, and a number of features here were clearly drainage features within this infill. The areas to the east of wall ***106*** would have formed a sunken yard, visible on Jonathan Binns' map of 1821. These plot boundaries, however, do not appear on Edward Baines' map of 1824, and it seems likely that these rear areas were infilled between these two dates, the plot boundary walls having been buried. This progressive infilling of the area for development clearly aimed to level the ground, since the original topography sloped down from the west, where natural till was recorded at 16.06m OD, to a height of 14.25m OD at the eastern end of the site. The current level of Dalton Square is at 17.37m OD, to the west of the study area, and at 17.67m OD to the east. This process of infill has therefore reversed the natural gradient of the ground surface.

4.5.4 In total, 17 shallow linear features were located (***12***, ***18***, ***20***, ***22***, ***24/71***, ***27***, ***62***, ***64***, ***73***, ***75***, ***89***, ***91***, ***103***, ***114***, ***118*** and ***176***), which were contemporary with the initial infilling of this plot of land (Fig 11). These features were predominantly aligned in a north-south direction, and ranged in width from 0.6m to 1.1m. Most continued beyond the limit of the excavation, although ***18*** and ***20*** were considerably shorter at 1.1m and 1m in length, and were more like elongated pits than linear features. All of the features appeared to have been deliberately backfilled, predominantly with a dark medium sandy silty clay containing red brick fragments and sub-angular sandstone, identical in nature to the overlying topsoil horizon (***14***). Features ***12***, ***27***, ***62*** and ***64***, near the southern limit of excavation, had been back-filled with sub-angular sandstone rubble. The purpose of these features was not resolved, and they do not appear to have an obvious function in the construction of Dalton Square. They may, like features ***120*** and ***125*** to the west, be related to horticultural activity, although they were not associated with evidence for manuring, and did not contain organic-rich soils.

4.5.5 A number of drainage features were noted to the west of wall ***106***, of which the most substantial was a stone-lined culvert (***109***), located in the side of a baulk left to protect a current sewer. The culvert was constructed from roughly hewn sandstone blocks, of a maximum size of 0.7m by 0.04m by 0.25m, the exposed western side being 1.1m in height (Plate 5). The capping stones

measured *c* 0.7m by 0.4m by 0.25m. The construction cut for the culvert truncated buried soil ***177*** to a depth of 0.15m, but it appears that the structure was largely built free standing, and then surrounded by the infill (***14***) for Dalton Square (Plate 5).

4.5.6 A stone-lined, square-shaped sump (***60***) had also been cut into the infill layers (***14***), capped with a slate slab. It measured 1.4m by 1.33m, and had a depth of at least 1.2m, but was not fully excavated for health and safety reasons. The stone lining was formed from roughly squared sandstone blocks individually measuring approximately 0.24m by 0.14m by 0.08m. A single half brick was also included in this structure, measuring 0.75m thick. A lead pipe, with a diameter of 0.1m, entered the sump from the east. Two stone-filled soak-aways (***29*** and ***66***) were also located in the western half of the excavation. Feature ***29*** was cut into the infill deposits (***14***), as well as truncating a medieval pit (***85***), and measured at least 4.4m by 1.75m by at least 0.85m in depth. Feature ***66*** truncated the slightly earlier eighteenth- to nineteenth-century linear features (***22*** and ***71***), as well as medieval pit ***58***. It measured at least 2.4m by 0.8m by at least 1.1m in depth. All of these features are within the footprint of the now demolished No 6 Dalton Square, which was incorporated into the single address of No 5 Dalton Square in 1862, and they therefore pre-date this phase of construction (OA North 2005). The front area of this plot is shown both on Binns' map of 1821 and the Baines' map of 1824 to have been a formal garden (OA North 2005).

4.5.7 To the east of wall ***106***, within the area that would have been a sunken yard for No 5 prior to 1862, drain ***127*** extended in a north-west to south-east orientation, with a width of 0.77m and a depth of 0.22m (Fig 9). This drain contained a dark brown coarse sandy silty clay (***128***), with occasional upright stones positioned along the edges of the feature. These stones would have originally formed the sides of a small culvert, which had clearly been heavily disturbed, so that most of its stones were absent, possibly as a result of numerous attempts at cleaning out the drain. At its southern end, adjacent to the southern limit of the excavation, the feature widened to 1.33m, with some clay included in the backfill (***143***). In this area, a large sandstone slab was located, measuring 1.83m by 0.6m by 0.05m. The stone was fractured down one side, but otherwise moulded to its current rectangular shape. It was not clear whether this forms part of the original design of the feature, or was a result of the later disturbance.

4.5.8 In the western half of the site, a sub-rectangular feature (***52***) was recorded cutting through the upper part of the buried soil horizon (***177***), measuring 1m by 0.89m and with a depth of 0.45m. Approximately 70% of its fill comprised large sub-angular stones, within a mid-grey sandy clay matrix (***53***). A 0.1m deep layer of mid-brown silty clay (***54***) formed the upper fill of the feature. It was believed that this was a posthole, although equally it may have been a shallow pit. No dating evidence was recovered from it, although the fact that it truncated the medieval soil horizon suggests it may relate to either Period 3 or 4. The similarity between its fills and those from other Period 4 features suggests that it dates to this period.

5. ASSESSMENT OF THE RESULTS

5.1 ASSESSMENT AIMS AND OBJECTIVES

5.1.1 The aim of this assessment was to evaluate all classes of data from the excavations undertaken at No 5 Dalton Square in 2005, in order to formulate a project design for a programme of further analysis appropriate to the potential demonstrated by the site archive. A statement of the significance of the results from each element of the archive is given below.

5.1.2 The objectives of this assessment correspond to, and are prescribed by, *Appendix 4* of *Management of Archaeological Projects 2nd edition* (English Heritage 1991a). They are to:

- assess the quantity, provenance and condition of all classes of material: stratigraphical, artefactual and environmental;
- comment on the range and variety of that material;
- assess the potential of the material to address questions raised in the course of this project design;
- formulate any further questions arising from the assessment of this material.

5.1.3 This assessment will present:

- a factual summary, characterising the quantity and perceived quality of the data contained within the site archive;
- a statement of the academic potential of the data;
- recommendations on the storage and curation of the data.

5.2 MATERIAL ASSESSED

5.2.1 The entire paper and material archive was examined for the purposes of this assessment. Quantifications are incorporated within the individual assessments.

5.3 PROCEDURES FOR ASSESSMENT

5.3.1 The method of assessment varied according to the class of information examined, although in each case it was undertaken in accordance with guidance provided in *Management of Archaeological Projects* (English Heritage 1991a). All classes of finds were examined in full, with observations supplemented by the finds records generated during the course of the excavation.

5.4 STRUCTURAL AND STRATIGRAPHIC DATA

5.4.1 The excavation has allowed a complete stratigraphic record to be made of four distinct periods of archaeological activity: a pre-medieval and medieval soil horizon; features and surfaces of the medieval Dominican Friary; structural evidence and features of the post-dissolution residence 'The Friers'; and layers, features and structures of post-medieval Dalton Square. The stratigraphic and structural data of the excavation will provide the framework within which all other analyses will take place.

5.4.2 Broad phasing has been ascribed to all contexts. It will not, however, be possible to refine the phasing further until a close study of the dating of individual contexts has been undertaken, following on from analysis of selected finds categories.

5.4.3 ***Quantification:*** there are 172 context records (*Appendix 2*), which may be broadly grouped as follows:

Geology	2
Late Mesolithic/Neolithic soil horizon	2
Romano-British/medieval soil horizon	8
Medieval Dominican Friary	57
Post-medieval residence 'The Friars'	28
Post-medieval Dalton Square	61
Twentieth century	14

5.4.4 The remaining paper and electronic site archive comprises the following:

Digitally surveyed plan	1
Section drawings	50
Monochrome prints	346
Colour slides	346
Digital images	157

5.5 THE ARTEFACTS

5.5.1 An assessment of the artefactual and ecofactual (*Section 5.6*) material recovered is presented below. The significance and potential of the material is presented in *Section 7*. Where there is no potential for further work, it is stated below.

5.5.2 ***The lithic assemblage (Table 1):*** in total, 23 flints and chert objects were collected from the lower part of the buried soil horizon (***178***), including 16 fragments of waste material from the working of lithics, two blades and one scraper. The assemblage largely comprises fragments of chert or similar fine-grained stone, making 72.7% of the group, with a small number of pieces of flint (13.6%). An equally small number of natural fragments of stone were also present (18.1%). The type of material present fits well within the broad trends of the region, where flint is not naturally occurring and a variety of other types of stone are used, particularly black chert (Hodgson and Brennand 2005a, 4). The assemblage is likely to date from the Late Mesolithic to Early Neolithic periods (*c* 5000-3500 BC).

OR No	Context	No	Material	Description
1030	*137*	1	Reddish-brown flint	Unfinished scraper (?), considerable amounts of retouch including steep retouch along one edge
1031	*146*	1	Mid brown flint	Blade fragment with notched distal end and projecting 'spur'. Some use-wear along blade end
1032	*146*	1	Fine-grained black chert with speckled orange inclusions	Long narrow-crested blade, snapped at distal end, bulb of percussion at proximal
1033	*146*	1	Mid greenish-grey stone	Natural stone
1034	*146*	1	Pale grey chert	Waste chunk, possible core fragment, some use-wear (?) and various flake scars
1035	*146*	2	Pale grey stone	Natural stones
1036	*146*	1	Pale grey chert	Waste chunk, probable core fragment, numerous flake scars
1037	*146*	1	Pale grey chert	Waste chunk, some cortex remaining
1038	*166*	1	Pale grey chert	Waste flake or piece of rough blade, small area of cortex remaining
1039	*166*	1	Buff chert	Waste flake with possible retouch or wear damage. Bulb of percussion present
1040	*166*	1	Mid-grey chert	Waste chunk, some cortex remaining, flake scars
1041	*165*	1	Pale grey chert	Waste chunk (?), some cortex remaining, flake scars
1042	*169*	1	Mid grey chert	Waste chunk
1043	*169*	1	Mid grey chert	Waste chunk, some cortex remaining
1044	*169*	1	Pale buff chert	Waste chunk, possible evidence for removal of flakes but very small, area of cortex remaining
1045	*169*	1	Fine-grained pale grey to buff chert	Waste chunk, possibly part of a small core, numerous flakes removed
1066	*146*	1	White flint, patinated	Waste flake or blade (?), proximal end snapped off, distal end has projecting spur and very fine denticular retouch (?). Very thin
1084	*166*	2	Pale grey chert	Chunk and waste flake, flake possibly burnt
1132	*161*	3	Mid grey chert, dark grey chert, pale grey stone	One natural stone, two waste chunks of chert, one burnt and both with cortex remaining and flake scars

Table 1: Summary of the lithic assemblage

5.5.3 ***The Romano-British pottery:*** a total of 94 sherds of pottery, including samian (five sherds), mortaria (three sherds), amphora (two sherds) and coarsewares (84 sherds), was recovered from the site. In total, 99% of the sherds were retrieved from stratified medieval and post-medieval contexts, and therefore

this assemblage was predominantly residual. In general, the material was in poor condition, and many fragments were clearly quite abraded, having mostly been recovered from disturbed deposits. A brief scan of the assemblage suggests that the material dates mainly from the second century AD, with some first century AD wares present, and a small amount of third-century pottery.

5.5.3 ***Medieval pottery (Appendix 3):*** in total, 550 fragments (4.754kg) of medieval pottery were recovered during the excavation, with a date range from the twelfth to fifteenth centuries. The majority of the fragments were vessel body sherds, although diagnostic rims, handles, and bases were also retrieved. Most of the fragments were quite small, although several were sufficiently large to provide an indication of the vessel form, and also included numerous joining sherds.

5.5.4 The medieval pottery was predominantly thirteenth to fourteenth century in date, and included a number of different fabric types. These ranged from locally-produced Gritty wares and Partially-Reduced Grey wares, to imports from producers outside the region. Within the assemblage as a whole, however, Lightly-Gritted wares are numerically the most significant type.

5.5.5 The relative paucity of Gritty wares within the assemblage is of interest. These fabric types dominate other assemblages of twelfth- and early thirteenth-century date recovered from Lancaster and the wider region. Many of the Gritty wares that are present within the Dalton Square assemblage, however, may be identified with the known production centres at Docker Moor and Ellel (Gibbons 1986). Similarly, the Reduced Grey wares, which are thought to have been the dominant fabrics in the region during the fifteenth and sixteenth centuries (McCarthy and Brooks 1988), are absent from the assemblage, implying medieval activity on the site had ceased by the fifteenth century.

5.5.6 ***Post-medieval pottery:*** in total, 467 fragments of post-medieval pottery were recovered from the site. The eighteenth- to nineteenth-century overburden (***18***) produced by far the largest number of fragments (141), representing 30% of the total assemblage. Other contexts from which more than 20 fragments each were recovered were the fills from linear features ***25***, ***72*** and ***115***, a pit fill (***69***), and garden feature ***119***. In general, the fragments were in reasonable condition, in a relatively unabraded state. A brief scan of the assemblage suggests that it dates mainly from the eighteenth to early nineteenth centuries, with no later material observed.

5.5.7 ***The ceramic tobacco pipe:*** a total of 58 fragments of ceramic tobacco pipe were recovered, all but three being small pieces of relatively large-bore stem. The material was in good condition, although fragmentary. Fills ***69*** and ***121*** produced the largest groups, with 28 and 15 fragments respectively. In both cases, however, dating evidence was restricted to a single bowl (OR 1139 and OR 1059) which, along with the single example from fill ***126*** (OR 1178), were of late seventeenth- to early to mid eighteenth-century date. In all cases, the material is associated with post-Dissolution and later activity on the site.

5.5.8 ***The ceramic and other building material:*** in total, 88 fragments of ceramic building material were recovered from the excavations. The material was in fair to good condition, although there was considerable fragmentation and abrasion in some contexts, for example the backfill (***23***) of a post-medieval linear feature. In addition, small amounts of mortar were recovered from the upper part of the buried soil horizon (***124***), and mortar and plaster were recovered from fill ***23***.

5.5.9 The majority of the ceramic fragments were small and undiagnostic, although differences in the quality of firing seemed to reflect the likely date, with a possible fragment of Romano-British imbrex (OR 1150) from a concentration of stone (***147***) in the buried soil horizon (***105***), being much softer-fired than demonstrably post-medieval material. None of the group was unequivocally medieval in date, although it is possible that sand-cast, knife-trimmed fragments from the backfills of a sump (***30***) and a pit (***69***), originate from medieval structures on the site, although other finds make it clear that fill ***69*** is post-medieval or later. Other tile is late in date, and includes an almost complete, half-circular tile, presumably from an architectural detail.

5.5.10 The mortar is of little significance; the white plaster is, however, possibly seventeenth-century in date, being visually similar to that used for fine plasterwork in the local area.

5.5.11 ***The copper alloy objects:*** a small group of copper alloy objects (nine fragments representing not more than six objects) was recovered from six contexts. The material was in poor to fair condition, the objects having a covering of powdery corrosion products, and being somewhat fragile as a result. Most of the objects were small items of dress, of the kind frequently lost. Two small dress pins (OR 1249, OR 1053) from Periods 3 and 4 fills ***23*** and ***119*** are unlikely to be earlier than the eighteenth century, and the button (OR 1256) from Period 4 fill ***69*** is probably of the same general date. The remainder of the group (OR 1246, OR 1126, OR 1049) cannot be dated.

5.5.12 ***The iron objects:*** 42 fragments of iron were recovered, probably representing a similar number of objects. The majority are probably nails, although this cannot be confirmed without x-ray. On the whole the material was in poor condition, with most objects having a dense coating of corrosion products, which largely obscured their original form and any surviving surface detail.

5.5.13 This group of objects, predominantly nails, cannot be dated with any precision, as the form of hand-forged nails changed little through time. The consistently small size of the nails suggests their use in furniture or smaller woodwork details rather than main structural timberwork, the latter in the medieval period at least, more likely to have been pegged than nailed. In this context, the concentration within the backfill (***72***) of a post-medieval linear feature might be of slight significance.

5.5.14 ***The lead objects:*** four fragments of lead were recovered from the site. The material was in good condition, with most objects having only a slight covering of white corrosion products. The significance of the leaden disc (OR 1108) from the fill (***121***) of a Period 3 garden feature could not be ascertained.

A small fragment of window kame (OR 1224) from the fill (***128***) of a Period 4 drain has the elongated H-section associated with post-medieval examples, and is thus unlikely to be associated with the fabric of the medieval Friary.

5.5.15 ***The vessel and window glass:*** some 797 fragments of blown vessel glass were recorded, deriving from 20 contexts. The majority (638 fragments, 75.5%) came from the backfill (***23***) of a post-medieval linear feature, with a further 68 fragments (8.5%) from the post-medieval overburden (***14***). In addition, there was a small amount of sheet glass (seven fragments), probably used for glazing. The glass was generally in fair condition, with some abrasion. Fragments were on the whole less than 50mm in maximum dimension, with some physical deterioration leading to surface dulling and the formation of iridescent weathering layers, although this to an extent reflects the chemical composition of the glass. The few extremely small fragments of medieval window glass were completely demineralised and consequently appeared black and opaque.

5.5.16 Most of the vessel glass derived from a single type, the free-blown, dark olive-green wine/beer bottle, typical of moderately well-to-do late seventeenth- and eighteenth-century domestic assemblages. The majority of the fragments were largely undiagnostic body sherds, and few bases or necks were present, limiting the value of the group for precise dating. Very few vessels of other types or dates were noted, although a single excellently preserved fragment from the fill (***121***) of one of the later horticultural features is probably part of the base of a 'ribbed and wrythen' beaker, of late seventeenth-century date, again pointing to relatively high-status consumption. Small amounts of later material were also noted. It is possible that very thin colourless fragments from a blown vessel found in association with a post-medieval wall foundation (***130***) are of Roman date, but in the absence of diagnostic sherds this cannot be confirmed.

5.5.17 The small amount of sheet glass covered the entire potential date-range of the site, with an abraded fragment of matt-glossy, cast Roman window glass from the upper part of the buried soil horizon (***166***), and small fragments of medieval window (presumably from the friary), from the primary fill (***40***) of a pit. There was thin greenish-natural 'Forest glass', probably dating to the seventeenth or eighteenth century from from the fill (***121***) of one of the later horticultural features, and late sheet glass from the post-medieval overburden (***14***) and a drainage feature (***128***).

5.5.18 ***The stone objects:*** only seven fragments of stone objects were recovered, the material being in good condition. Three of the objects appeared to be *ad hoc* whetstones (OR 1226, OR 1112, and OR 1114), made from available local stone rather than being ready-made or deliberately imported objects. All appeared to have been used to sharpen blades rather than points, but they cannot be dated. Sandstone roofing tiles were recorded from the fill (***69***) of a post-medieval pit and a concentration of stone (***147***), but are not chronologically diagnostic.

5.5.19 ***The objects of bone and textile:*** only two objects of worked animal bone and a small fragment of textile were recovered, from the fills of a pit (*77*), and a

garden feature (***121***). The bone was in good condition, although fragile, and the textile was waterlogged. Soil conditions in Lancaster are often unfavourable to good bone preservation, and thus any bone artefact has a slightly enhanced significance. A fragment of relatively small double-sided bone comb (OR 1056) was recovered from fill ***121***, which were relatively common in the seventeenth century, being made from bone or ivory. A small bone bead (OR 1268) from the same context is not a frequent type of find, but presumably was a component of jewellery. Neither of the bone objects would be out of place in an early post-medieval context. Again, textiles are not a common find in Lancaster. This particular example is a small fragment of very coarse fabric, in a plain tabby weave, and could possibly have been used within a household rather than deriving from an item of apparel.

5.5.20 ***The industrial residues and debris:*** in all, 31 fragments of metal-working debris were recovered. Although only examined visually, it is possible to divide the material into two groups, possible secondary iron-working (21 fragments) and copper or copper alloy working (ten fragments).

5.5.21 The evidence for secondary iron-working is restricted to small and relatively undiagnostic fragments, the quantities present being insufficient to suggest systematic activity, and raises the possibility that it was imported to the site incidentally. The amount of copper or copper alloy working residues is even less, but as it comprises small solidified drips of metal as well as slags, it seems more likely that the metal was at least melted on site. It must, however, be noted that melting does not necessarily imply casting, and the small amounts involved could easily have been the by-product of a fire. It is possible, however, depending on their context, that they provide scant evidence of medieval bell-casting associated with the friary, or are evidence for post-Dissolution scavenging of the friary's fabric.

5.6 ECOFACTS

5.6.1 ***The animal bone (Table 2):*** 320 animal bones were recovered from the excavations. In general the preservation of the bone within each phase is broadly consistent. The material comprised typically less than 50% of the original anatomical part, but with limited erosion on its surface and, although brittle, of a robust nature. In total, 53 specimens were noted with butchery marks, predominantly cattle horn cores from 'The Friers' phase of the site, associated with the removal of the horns from the skull and skinning of these animals. A significant quantity of biometrical data was also obtained from the same horn cores.

Species	Roman/ Medieval	Medieval	Post-Medieval - The Friers	Post-Medieval - Dalton Square	Total
Cattle		16	98	14	**128**
Pig		4	1	2	**7**
Sheep/Goat		12	6	7	**25**
Sheep			19		**19**
Cattle/Red Deer		2	3	8	**13**
Sheep/Goat/Roe Deer		3		1	**4**
Red/Fallow Deer		1			**1**
Rattus sp				1	**1**
Medium Mammal		9	6	3	**18**
Large Mammal	1	14	13	40	**68**
Unidentified Mammal		9	1	7	**17**
Bantam	1	1			**2**
Domestic Fowl		2		1	**3**
Domestic Goose			1		**1**
Pheasant		1			**1**
Anas sp			1		**1**
Bird		3	6	2	**11**
Total	**2**	**77**	**155**	**86**	**320**

Table 2: Summary of animal bone by period

5.6.3 ***The fish bone:*** soil samples from the fills of medieval rubbish pits ***31*** and ***57*** were rich in fish remains, with over 400 identifiable fragments being recovered from the residues for this assessment. In addition, six large cod bones were recovered by hand collection, from fills ***34*** and ***35*** from pit ***31***, and from the upper part of the buried soil horizon (***133***). Large cod (*Gadus morhua*) bones were common, with examples of butchery observed. Flatfish (including plaice/flounder/dab - Pleuronectidae) were particularly common, as were herring/sprat (Clupeidae) and smaller cod family fishes (Gadidae). Eel (*Anguilla anguilla*), conger eel (*Conger conger*), salmon (*Salmo salar*) whiting (*Merlangius merlangus*), and possibly sea bream (Sparidae) were also identified. A proportion of the bones were burnt.

5.6.4 ***The marine mollusca:*** approximately 73 fragments of marine mollusc shell were recovered, probably representing no more than 50 individual valves or shells and, by extension, about the same number of specimens. The shell was in poor to fair to good condition, with fragility varying with species. Four common food species were noted, being native oyster, edible whelk, mussel, and cockle. Appearing in small quantities, they are most likely to represent the remains of food; all three could have been fished relatively locally. The presence of the mollusca is intersting, as the soil conditions in Lancaster are often inimical to good shell preservation, especially reducing oyster to small and powdery laminar fragments.

5.6.5 ***Charred and waterlogged plant remains (Appendix 4):*** 49 bulk environmental samples were taken from all feature types and periods from secure contexts, of which 40 were processed for this assessment. Ten litres were processed from 31 samples and 0.5–8 litres from the remaining nine samples. The samples were hand-floated and the flots were collected on 250 micron mesh and air-dried. The flots was scanned with a Leica MZ6 stereo microscope and plant material was recorded and provisionally identified. The data are shown in *Appendix 4*. Botanical nomenclature follows Stace (1991). Plant remains were scored on a scale of abundance of 1–4, where 1 is rare (less

than five items) and 4 is abundant (more than 100 items). The components of the matrix were also noted.

5.6.6 All of the samples contained charcoal which was abundant in some, but with less than 25 fragments in others. Small numbers of cereal grains were recorded in eight of the samples. Charred woody and weed seeds were identified in 12 of the samples, but again only in small numbers. They included *Corylus avellana* (hazelnuts), *Sambucus nigra* (elder), both native trees which probably grew in the vicinity but could also have been used as a food source. Seeds of arable were recorded in the fills of the medieval pits and included *Fumaria* (fumatories), *Chrysanthemum segetum* (corn marigold), *Persicaria lapathifolia* (pale persicaria) and *Agrostemma* (corncockle), together with Chenopodiaceae (goosefoots), which like waste ground or arable, and suggest that some cultivated land may have been present in the environs of the friary during the medieval period. *Juncus* (rushes) and *Conium maculatum* (hemlock) seeds were identified, which like damp ground, suggesting the immediate area was wet. Legumes were identified, which also suggests they were growing locally and being used for food.

5.6.7 ***Soil monoliths:*** four soil monoliths were taken from the buried soil in order to judge its soil character and geoarchaeological potential. The monoliths were cleaned, photographed and examined using 'field' techniques (Hodgson 1997). The section (monolith 33) at the centre of the site (Fig 8) appears to be a truncated variant of the soil and sedimentary sequence sampled 12m to the north in monolith sequence 32 (Fig 2). Basal layer ***169*** and lower soil horizon ***145*** are strongly mottled sandy loam (clayey sands) soils formed at the interface with the underlying glacial till. Overlying ***166*** and ***145*** are mottled, and iron and manganese stained, sandy loam soils, showing evidence of once-fine rooting. It can be suggested that this material represents alluviation and possible Holocene pedogenesis, that homogenised clayey and sandy sediments. The finds retrieved from upper soil ***133*** seem to suggest mixing and contamination in the Roman to medieval periods. Equally, medieval activity appears to have truncated the sequence within the central part of the site and a cobbled surface was laid down, presumably to alleviate wetness in this part of the site.

5.6.8 ***Pollen:*** four three-litre sub-samples were taken from a monolith sequence (31) from the buried soil, in order to examine the observed changes in the stratigraphy. Accordingly, the sub-samples were taken at depths of: 0.33m (***133*** of group ***177***); 0.675m (top of ***166*** of group ***178***); 0.95m (base of ***166*** of group ***178***); and 1.09m (lower interface of ***169***). The samples were prepared using standard procedures (Faegri and Iversen 1989) and mounted in silicone oil, with two exotic (*Lycopodium*) spore tablets being added to each sample in order to determine pollen concentrations. The pollen slides were examined with an Olympus BH-2 microscope using x400 magnification. Ten transects were scanned over two cover slips of each sample. All four samples were devoid of pollen and other palaeoenvironmental indicators such as fungi and spores, but it is possible that the conditions were not conducive for their preservation, rather than the soil being sterile.

6. CURATION AND CONSERVATION

6.1 RECIPIENT MUSEUM

6.1.1 The Museum of Lancashire has been nominated as the ultimate place of deposition for the finds.

Museum of Lancashire, Stanley Street, Preston, PR1 4YP

Contact: Stephen Bull, Museum Curator

6.1.2 Arrangements were made with the Museum prior to the excavations for the deposition of the complete site archive from the excavations, and Stephen Bull has acknowledged his willingness to accept this archive.

6.2 STORAGE

6.2.1 The complete project archive, which will include records, plans, black and white and colour photographs, artefacts, ecofacts and sieved residues, will be prepared following the guidelines set out in *Environmental standards for the permanent storage of excavated material from archaeological sites* (UKIC 1990) and *Guidelines for the preparation of excavation archives for long-term storage* (Walker 1990).

6.2.2 All finds will be packaged according to the Museum's specifications, in either acid-free cardboard boxes, or in airtight plastic boxes for unstable material.

6.3 GENERAL CONSERVATION

6.3.1 Most of the assemblage is well-preserved and in a good, stable, condition and thus the conservation requirement is low. All finds should be packaged with appropriate care. The textile recovered from fill ***121*** is currently being stored in refrigerated conditions. This would require conservation to ensure its continued survival. The item is post-medieval in date, and does not appear to be a piece of clothing, but rather a roughly woven cloth. The item is therefore not considered significant enough to justify these measures.

6.4 PACKAGING

6.4.1 The assemblage is currently well-packed and will require no further packaging. Box lists are prepared and will be updated from the database when the identification of objects is complete.

6.5 DISCARD POLICY

6.5.1 A relatively small finds' assemblage was recovered from the evaluation and the excavation, most of which was from well-stratified deposits, with very little material suitable to be discarded. However, several environmental bulk samples were recovered, which upon agreement with the client may be discarded, once processing and analysis has been completed. Four pieces of natural stone (OR 1033, OR 1035 and part of OR 1132) do not need to be retained. Three modern (twentieth century) animal bones were recovered from a layer (***39***) in the upper part of the site, which may also be discarded.

7. POTENTIAL

7.1 STATEMENT OF POTENTIAL

7.1.1 The excavation has allowed as full as possible a stratigraphic record to be made of the archaeology in all phases. Coupled with the documentary and cartographic sources, the artefactual and stratigraphic records represent a significant and comprehensive resource to reproduce a detailed history of the development of the site. This will examine all classes of artefactual and environmental material, and provide detailed insight into the activities and economies of the occupants of the site for over 6000 years. The key to understanding these different types of activity, and the development of the site, resides with the integration of its layout and organisation and the documentary, cartographic, artefactual and stratigraphic records.

7.1.2 The excavation of the site has revealed four phases of activity: a Late Mesolithic/Early Neolithic to medieval buried soil horizon; surfaces and pits associated with the Dominican Friary; the post-Dissolution residence, 'The Friers'; and material associated with the construction of Dalton Square. The presence of Roman pottery within the lower soil horizon, but with no evidence for buildings or structures, implies that the area was largely agricultural during the Roman period. The remains of a medieval cobbled surface and two phases of pits, the earlier possibly for extraction and the later rubbish pits, are likely to be associated with the Dominican Friary. Analysis of these features, and their associated artefacts and ecofacts, from what is assumed to be relatively close proximity to the friary church, has the potential to provide information on the use of land within the precinct and the dietary intake of those who lived at the friary. This in turn may provide information on the economy of the friary, potential sources of foodstuffs, and methods of trade and procurement.

7.1.3 Limited remains associated with the post-medieval residence, 'The Friers', were recorded. These comprised part of the foundations and garden features associated with the residence. Although slight, analysis of these remains has the potential to increase our understanding of the construction of, as well as more accurately locate, the residence, and provide information on the horticultural activities of its occupants. The remains from the construction of Dalton Square demonstrate that the rear part of these plots have seen repeated change and development. Initially, the area to the rear was sunken, divided by boundary walls which are visible on Binns' map of 1821. Within a relatively short time the area was infilled, producing the layout shown on Edward Baines' map of 1824.

7.2 PRINCIPAL POTENTIAL

7.2.1 ***Stratigraphic data:*** the stratigraphy of the buried soil horizon is not complex, and requires little further analysis. Similarly, the stratigraphy associated with 'The Friers' has relatively few recorded features. Further detailed analysis of

the inter-cutting medieval pits will, however, greatly aid the analysis of the finds' assemblages, and ultimately aid the interpretation of landuse within the grounds of the Dominican Friary, and the patterns of consumption of the friars. Although no structural remains associated with the friary were located, some idea of the position of the site within the complex can be postulated from the limited accounts of antiquarian excavations. Similarly, the different phases and relative sequence of development of Dalton Square will provide an important framework for a study of finds such as the post-medieval pottery.

7.2.2 ***Documentary study:*** the documentary evidence will provide the historical context within which to place the previously unavailable excavated evidence. A rapid desk-based assessment was previously conducted in this plot of land (OA North 2005), the results of which will be a significant aid in the interpretation of the archaeological remains. Although only a little was included regarding the occupants of The Friarage, the documentation of the construction of Dalton Square was covered in considerable detail. Alongside previous work on the Friary site, the historical background will provide the context within which to place the excavated data.

7.2.3 The prehistoric and Roman remains are limited to finds within the buried soil horizon. Any further work will be restricted to placing these finds within a wider context.

7.2.4 ***Lithics:*** stratigraphically sealed and well-excavated examples of sites of this period are uncommon in North Lancashire, and this is the first of its kind from Lancaster itself (Penney 1981, 40). Most of the assemblages previously recorded comprise surface scatters (Middleton 1993; Middleton *et al* 1995) or have been poorly excavated (Salisbury and Sheppard 1994). The site is important regionally in helping to expand the known distribution of such material and regarding the potential archaeological resource in Lancaster, where assemblages of a similar date may also lie beneath extensive later deposits. These may have been obscured or destroyed in other areas by more significant Roman, medieval and post-medieval deposits but could also have been missed during earlier excavations. Additionally, the assemblage has some importance if the context can be closely tied into palaeoenvironmental analysis. This in turn could provide a more detailed understanding of the socio-economic context of the assemblage, especially if associated environmental and/or faunal information is present.

7.2.6 ***Roman pottery:*** in general, the pottery has a broad date range between the second and third centuries AD. It is, however, possible that there was some activity on the site before this date, suggested by the presence of handmade 'native' Late Iron Age/Early Roman wares. Although the material is not associated with structural evidence, it provides a strong indication of Romano-British activity in the immediate area, with some suggestion that the assemblage has military connotations. It should be noted, however, that the site is *c* 750m from the site of the Roman fort at Lancaster.

7.2.7 Although the Dalton Square site is dominated by medieval and post-medieval activity, the presence of relatively large amounts of Roman pottery is locally important. The location is likely to have been on the outskirts of the Roman

civil settlement, but with access to the mechanisms of trade and exchange centred around the military installation. *The Study Group for Roman Pottery* has highlighted sites with military associations as one of a limited number of regional research priorities. It is recognised that the military sites themselves have been favoured for research, in comparison with sites neighbouring the forts, such as *vici*. 'Similarly, the relationships, between *vici* and neighbouring rural sites are poorly known' (Evans and Willis 2002). Although the exact context for the deposition of the pottery is not known, full analysis of the assemblage should help to indicate the nature of Roman activity on the site, as well as patterns of trade and consumption during the second and third centuries.

7.2.8 The pottery clearly has the potential to offer chronological evidence for the excavated stratigraphic sequence, and will also provide evidence for trade and supply in the area. A brief report, fabric analysis and accompanying catalogue of the material should be prepared for inclusion within the final report. It is suggested that six sherds should be illustrated.

7.2.9 ***Medieval pottery***: an assessment of the medieval pottery has indicated that there is some potential for further work. Whilst it is accepted that, as yet, medieval ceramics in the North West as a region are not understood sufficiently to provide close dating of archaeological deposits, there is a clear potential for the material to refine the date and phasing of the site. The paucity of Gritty wares and the absence of Reduced Grey wares indicates activity on the site to have been focussed on the thirteenth and fourteenth centuries. It should be noted, however, that there are as yet no fabric types in Lancaster that can definitely be attributed to the fifteenth century.

7.2.10 The paucity of good assemblages of medieval pottery from excavations in the North West has been highlighted both by McCarthy and Brooks (1988) and by English Heritage (Mellor 1994). In some cases, this is due to the absence of a secure stratigraphic sequence, or the fact that the pottery does not occur in close association with dated buildings or events. A further problem with ceramic studies in the region is that many of the groups of pottery retrieved from excavations cannot be considered as representative of the pottery used in the North West, as there is a marked bias towards high-status castle and abbey sites (Davey 1977, 7).

7.2.11 Comparison of the assemblage from the Dalton Square excavation with those produced from elsewhere in Lancaster, notably from Church Street (Miller and White forthcoming), presents a rare opportunity to compare an assemblage with material retrieved from another part of the city. This may inform a greater understanding of ceramic traditions, and perhaps trading patterns, within the city and, on a wider scale, particularly those across the Pennines and via the Irish Sea.

7.2.12 ***Post-medieval pottery:*** the tablewares have the most potential for dating the post-medieval stratigraphy at Dalton Square. Contributions can be made towards this through the identification of transfer-printed patterns, by matching them to published examples in the national literature. Many deposits were apparently sealed when Dalton Square was built in the early nineteenth

century, and there is an apparent lack of any later intrusive material. There is therefore a good potential for dating the local coarsewares by association with the dated tablewares from the same contexts. It is not anticipated that much can be discerned regarding the economic and social aspects of the assemblage, due to a lack of comparative local material. Detailed recording will, however, assist in providing the data for future synthetic analysis.

7.2.13 Although the assemblage is relatively modern in date, full publication is recommended. *The North West Regional Research Framework* states that 'the available data set needs to be greatly enlarged. Stratified artefact sequences from both small towns and rural settlements need to be collected, in order to establish the character of ceramic use throughout the region and to create the basis for socio-economic interpretation' (Newman and McNeil 2005a).

7.2.14 ***The ceramic tobacco pipe:*** the size of the assemblage precludes substantial further analysis, but confirmation and refinement of the dating of individual pipe bowls is recommended. A brief report and accompanying catalogue of the material should be prepared for inclusion within the final report. The three bowl fragments will require drawing.

7.2.15 ***The ceramic and other building material:*** the assemblage is too small to warrant discussion in detail, although brief consideration will add detail to the interpretation of the appearance of buildings on the site. A brief report and accompanying catalogue should be prepared for inclusion within the final report.

7.2.16 ***The copper alloy objects:*** the assemblage is too small to warrant discussion in detail, although brief consideration will add detail to the interpretation of day-to-day activity on the site. The material should be submitted for x-ray in order to confirm identification. A brief report and accompanying catalogue should be prepared for inclusion within the final report. One object (OR 1256) will require drawing.

7.2.17 ***The iron objects:*** the assemblage is too small and too fragmentary to warrant discussion in detail, although brief consideration will add detail to the interpretation of day-to-day activity on the site. The material should be submitted for x-ray in order to confirm identification. A brief report and accompanying catalogue should be prepared for inclusion within the final report.

7.2.18 ***The lead objects:*** although their presence should be noted, none of the lead objects bears significant potential to contribute to the dating or other interpretation of the site. In consequence, little further analysis is recommended, although a note of the presence of individual items might gain in significance when considered alongside other finds' groups. A brief report and accompanying catalogue of the material should be prepared for inclusion within the final report.

7.2.19 ***The vessel and window glass:*** the assemblage will contribute towards refining the dating of later contexts on the site, although the potential is limited by the lack of diagnostic sherds. A rapid scan identified little potential for refitting or

reconstruction of individual vessels, but some attempt should be considered with a view to establishing cross-context joins. The lack of variety in the range of vessels present perhaps indicates a specialist origin for the material, but this is dependent on the identification and nature of individual contexts, especially the fill (***23***) of linear feature ***22***. A brief report and accompanying catalogue should be prepared for inclusion within the final report, concentrating on the chronologically sensitive material. A minimum of one object (OR 1103) will require illustration. It is possible that further examination of the vessel glass will allow some refitting, and provision should be made for the illustration of up to five part-vessels.

7.2.20 ***The stone objects (excluding flint and chert):*** the assemblage is too small to warrant discussion in detail, although brief consideration will add detail to the interpretation of day-to-day life on the site. A brief report and accompanying catalogue should be prepared for inclusion within the final report.

7.2.21 ***The objects of bone and textile:*** although small and common items, the unusual survival of such objects within the archaeological context of Lancaster warrants a brief discussion of all three, adding detail to the interpretation of day-to-day life on the site. A brief report and accompanying catalogue should be prepared for inclusion within the final report. Both bone objects will require illustration, and a photograph of the textile should be included in the final report.

7.2.22 ***The industrial residues and debris:*** as the amounts represented are very small, detailed analysis would not seem valid for either group. A brief consideration of their distribution will, however, add detail to the interpretation of day-to-day life on the site. A brief report should be prepared for inclusion within the final report.

7.2.23 ***The animal bone:*** the potential for further analysis of the assemblage is restricted to the interpretation of the material within specific features, such as primary butchery or table waste, adding to the overall interpretation of the site. There is limited potential to consider the wider aspects of the husbandry practices in each phase, the exception being a discussion of the analysis of the cattle horncores from 'The Friarage' phase. No further recording of the mammal bones is required, as this was completed to a level suitable for further analysis during the assessment. Provision should be made for the refinement of identification of the avian bone, allowing for a visit to the reference collection at the Museum of Liverpool's Department of Natural History. A brief report detailing the interpretation of the material should be prepared for inclusion within the final report.

7.2.24 ***The fish bone:*** the assessment has demonstrated that two of the bulk samples from medieval pit fills were rich in fish remains, and are worthy of further analysis. Both samples derive from fills dating to the medieval period, and almost certainly associated with the Dominican Friary. Pit fill ***35*** (sample 4) contained abundant evidence for the importance of fish in the mendicants' diet, and seems likely to represent kitchen waste. The composition of sample 12 appears very similar in terms of the types of fish represented. It is recommended that the relevant residues and flots are fully sorted, and the

hand-collected bone should be included in the report for completeness. A full report on the fish assemblage will be produced.

7.2.25 ***The marine mollusca:*** although their presence should be noted, the marine molluscs bear no significant potential to contribute to the interpretation of the site. In consequence, no further analysis can be recommended, although a note of the presence of molluscs amongst the food items consumed should be made. A brief report should be prepared for inclusion within the final report.

7.2.26 ***Charred and waterlogged plant remains:*** the assessment recorded only small numbers of cereal grains and associated weeds; therefore the environmental dataset is limited. However, it does show that the inhabitants of the site were bringing in cereals and their associated weeds during the medieval period. The assessment adequately recorded this activity and thus there is no further potential for further analysis of the charred and waterlogged plant remains. Samples from the buried soil were also assessed for their potential for scientific dating. Although some charred plant material was recorded in the buried soil and other features, it was not abundant and except for charcoal fragments only occasional charred cereal grains were identified. The potential for radiocarbon dating of charred plant remains is, therefore, not high.

7.2.27 ***Soil monoliths:*** no pollen was preserved in the material, which restricts the available avenues of palaeoenvironmental reconstruction. Programmes of soil micromorphological and bulk chemical (loss on ignition and fractionated phosphorous) study could be used to help characterise the prehistoric environment, and activities such as possible animal management, although these would need to be tied into a scientific dating programme, which also has little potential for success. It is therefore not considered worthwhile pursuing further soil micromorphological work on the buried soils without accompanying pollen and datable material.

7.3 NATIONAL AND REGIONAL PRIORITIES

7.3.1 ***National Research Priorities***: in 1991 English Heritage produced *Exploring Our Past*, which included a strategy for dealing with the archaeological problems and opportunities which would be encountered during the following decade (English Heritage 1991b). Many of the ideas first raised in *Exploring our Past* were developed further in a draft *Research Agenda,* circulated to the archaeological profession in 1997. Technically, this document has now been superseded by the *Exploring Our Past Implementation Plan* (English Heritage 2003), although many aspects from the 1997 draft *Research Agenda* still remain pertinent for the study of the periods in question. In particular, points from the *Chronological Periods* and *Themes* sections are relevant to this study:

- there is a need to provide a more thorough context for an understanding of the mesolithic period in Northern England, and investigation and sampling is to be encouraged (P4);

- there is a need to investigate the origins and development of medieval small towns and markets, and most especially their evolution from former Roman settlements (H5);

- the hierarchies and inter-action of settlement needs to be examined through analysis of artefacts, ecofacts and structural evidence. This will be relevant for providing insights into economy and social practices, as well as indicators of circulation systems, speed of exchange, and degrees of availability (T1);

- environmental data (animal bone, plant remains, shell, etc) and classes of material culture are key mechanisms for developing our understanding of trades and crafts (T2).

7.3.3 ***Regional Research Priorities***: the draft *North West Region Archaeological Research Framework* has outlined a number of identified priorities for all periods within the region (www.liverpoolmuseums.org.uk/arf). Those priorities of particular relevance to the present site are as follows:

Environment

- the use of radiocarbon dating should be combined with palaeoenvironmental reconstruction, aided by soil micromorphology and bulk chemical analysis, to increase the understanding of the local environment and landuse, as pasture or arable land from the prehistoric to the medieval periods (Hodgson and Brennand 2005b, 5; Philpott and Brennand 2005, 5 and Newman and Newman 2005, 3);

- environmental samples from post-medieval sites should be analysed from appropriate deposits wherever possible to gain information on the exploitation of plants and animals, especially in relation to changes of consumption (Newman and McNeil 2005b, 9);

- without attention paid to fish bone and shell assemblages, we cannot assess how far such resources were traded. Deposits of marine molluscs and fish bone should be targeted for analysis to record size, shape and parasitic infestations in order to establish sources and any seasonality to harvesting (Newman and Newman 2005, 5);

Lithics

- the characterisation, close dating and publication of the lithic assemblage is important for an understanding of technology, chronology and landscape use in the region (Hodgson and Brennand 2005b, 7);

Trade, Exchange, Production and Interaction

- examination of the Romano-British ceramics should enable greater understanding of imported pottery types, with implications for understanding the activities at the Roman port of Lancaster, although

physical evidence of such a port in Lancaster has yet to be located (Philpott and Brennand 2005, 14-15);

- examination of the medieval pottery would contribute to our understanding of distributions from production centres, the apparent biases within the collective dataset for the region, and the perceptions of the nature of the data in relation to trade and relative scarcity of post-Norman Conquest pottery types in specific areas (Newman and Newman 2005, 19);

- examination and publication of the artefacts (specifically the pottery) from the Dominican Friary would aid the understanding of differences between high-status assemblages from those of lower status. This should enable insights into different patterns of interaction and breadth of contrast between different social groups (Newman and Newman 2005, 19);

- improvement of regional knowledge of post-medieval ceramic vessel form and fabric type chronologies is important to an understanding of local products and trading patterns (Newman and McNeil 2005b, 14);

Landscapes Use and Resource Exploitation

- Examination of the use of marine and coastal resource, specifically shellfish and fish, will provide significant information with implications for which marine food sources would have been available and locally traded during the medieval period (Newman and Newman 2005, 5);

Ritual, Religion and Ceremony

- Investigating the buildings of urban friaries is a priority. Although no structural remains of the Dominican Friary was located within the excavation area, the site was nevertheless within the precinct and has yielded associated material (Newman and Newman 2005, 11);

- it is important that the activities taking place within the monastic precinct boundaries should be examined using all sources of data, to provide as a full a picture of daily life as possible (Newman and Newman 2005, 11);

Urban Landscape

- publication of the results from No 5 Dalton Square would aid studies into post-medieval consumption patterns across the region and between various social groups (Newman and McNeil 2005b, 8).

7.3.4 Whilst it is debatable whether any data category, or the complete dataset itself, from the investigated elements of No 5 Dalton Square could fully address most of the priorities, the publication of the results from the excavation should contribute to these issues.

8. UPDATED PROJECT DESIGN

8.1 AIMS AND OBJECTIVES OF THE PROGRAMME OF ANALYSIS

8.1.1 ***Aims:*** the assessment of the fieldwork has demonstrated potential for further analysis. The principal aim should be to place the results of the present programme of work in the public domain.

8.1.2 ***Overall objectives:*** the overall objectives of this project are:

- to secure the publication of the investigated element of No 5 Dalton Square;
- to contribute to an understanding of the Late Mesolithic/Early Neolithic activity and environment in north Lancashire;
- to contribute to an understanding of landuse, exchange and consumption in Roman period Lancaster;
- to contribute to an understanding of the development, consumption patterns and exchange networks of the medieval Dominican Friary in Lancaster;
- to contribute to the understanding and development, consumption patterns, and exchange networks of post-medieval Lancaster.

8.1.3 ***Specific objectives***: the specific objectives which the data can address are:

1. to characterise and date the sequence of the archaeological features and deposits revealed during the course of the excavation;
2. to inform on lithic sources, technology, and occupation in the lower Lune Valley during the Late Mesolithic/Early Neolithic period;
3. to inform an understanding of the landuse and development of the medieval Dominican Friary through examination of the archaeological features, artefacts and ecofacts, within a dated stratigraphical framework;
4. to determine a date-range for the circulation and deposition of the Roman, medieval and post-medieval pottery, at a local and regional scale;
5. to determine the source and gathering practices of marine resources, fish and shell fish, associated with medieval Lancaster and the Dominican Friary;
6. to determine the consumption patterns of the medieval Dominican Friary;

7. to inform on the selection and use of cattle within post-medieval Lancaster, through examination of the archaeological features within a dated stratigraphical framework;

8. to inform on the development and status of the site during post-medieval Lancaster, from 'the Friarage' residence to the development of Dalton Square.

8.2 PRESENTATION OF RESULTS

8.2.1 In accordance with the guideline outlined in the English Heritage document MAP 2 (English Heritage 1991a), it is proposed that the results of the project should be presented in the following stages:

1 **Publication text:** the dataset generated from the archaeological investigation at No 5 Dalton Square is clearly of significance and merits further analysis and dissemination. There is currently no regularly produced archaeological journal or monograph series covering the Lancaster area, where large excavation reports can be published. Therefore, following analysis and the interpretation of the results, a text will be prepared suitable for publication within a monograph on a range of sites recently excavated in Lancaster, the feasibility of which is currently being explored by Oxford Archaeology North.

2 **Project archive:** the completion of the project will result in an integrated archive, which will be deposited with the Lancashire Museums Service.

8.3 PROGRAMME STRUCTURE

8.3.1 The post-excavation programme will be divided into the following stages:

- synthesis
- preparation of draft text and illustrative material
- publication
- archive deposition.

9. METHOD STATEMENT

9.1 INTRODUCTION

9.1.1 This statement relates the tasks outlined in the task list (*Appendix 5*) to the aims and objectives. The programme of work is tailored to address the specific objectives, which, when achieved, will secure the general objectives outlined in *Section 8.1* above.

9.2 START-UP

9.2.1 ***Task 1:*** to facilitate all objectives.

9.2.2 The team members will be informed of the project's initiation and the timetable for each individual element of the analysis. The project manager will ensure that each specialist is in possession of all the relevant material and information, and that the analysis can proceed according to schedule.

9.3 STRATIGRAPHIC ANALYSIS

9.3.1 ***Task 2:*** to facilitate objectives, with particular relevance to 1, 3 and 7.

9.3.2 The stratigraphic analysis will form the contextual framework for all further aspects of the artefact and environmental analysis. A detailed structural text will be compiled presenting the site stratigraphic sequence, its relationship to the artefactual record, and its interpretation regarding questions of artefactual residuality and site taphonomic processes. The stratigraphic matrix will also be refined and completed.

9.4 WORKED FLINT AND CHERT

9.3.1 ***Task 3:*** to facilitate objectives 1 and 2.

9.3.2 Although the assemblage is important, there is little potential for further work. The assessment report will be refined into a final report text. This will include comparison with flint and chert sites in the wider region, with origins for the source material suggested where possible.

9.5 THE ROMAN POTTERY

9.5.1 ***Task 4.1***: to facilitate objectives 1 and 4.

9.5.2 To fulfil its potential, the Roman pottery will require comprehensive cataloguing and additional research and analysis. Careful identification of rim forms, fabrics and detail will be necessary to refine the dating. The complete assemblage will therefore be fully recorded to produce an archive catalogue in

which every sherd is recorded, and a report text will be produced. Approximately six sherds will require drawing.

9.6 THE MEDIEVAL POTTERY

9.6.1 ***Task 4.2:*** to facilitate objectives 1, 3 and 4.

9.6.2 The pottery will be recorded and analysed in detail by fabric and form using the guidelines of the Medieval Pottery Research Group (2001). Correlations will be made with local fabric groups with reference to the collections of medieval pottery from previous excavations in Lancaster and the wider region, notably from Church Street (Miller and White forthcoming).

9.6.3 The assemblage will be described and discussed in terms of potential sources and the level of production, the local and regional ceramic context, the implications for site chronology and for site function and status. Material will be selected for illustration and catalogue entries produced.

9.7 POST-MEDIEVAL POTTERY

9.7.1 ***Task 4.3:*** to facilitate objectives 1, 4 and 8.

9.7.2 The pottery will be recorded and analysed by fabric and form, which will create the basis of the report text. Analysis will be accompanied by the production of colour plates for selected decorated tin-glazed earthenware, creamware, pearlware, and porcelain, and transfer-printed patterns will be identified where possible. For the coarsewares, the significant profiles and rims will be illustrated, with particular attention being paid to the location of any glaze or decoration on the body. It is hoped that this will assist in building up local coarseware typologies, and will be useful for comparisons with other sites and synthetic research in the future.

9.8 THE CERAMIC TOBACCO PIPE

9.8.1 ***Task 5:*** to facilitate objectives 1 and 8.

9.8.2 The results of the assessment will be integrated in to the final report, and comparanda sought form the pipe bowls. Three bowl fragments will require drawing.

9.9 THE BUILDING MATERIALS

9.9.1 ***Task 6:*** to facilitate objectives 1 and 8.

9.9.2 A report for publication will be compiled from the assessment data.

9.10 METAL OBJECTS

9.10.1 ***Tasks 7 to 9:*** to facilitate objectives 3 and 8.

9.10.2 All of the iron and copper alloy objects should be submitted for x-ray to confirm their identification and facilitate further analysis. Comparative material will be sought, the functions of artefacts discussed, the local and regional significance of the material considered, and a catalogue of items produced to support a brief synthetic report. One copper alloy object will require drawing.

9.11 THE VESSEL AND WINDOW GLASS

911.1 ***Task 10:*** to facilitate objectives 3 and 8.

9.11.2 A publication report will be compiled from the assessment data, with an accompanying catalogue. Comparanda will be sought from Lancaster and the wider region, and the function of the artefacts discussed. Provision will be made for the illustration of five part-vessels.

9.12 STONE OBJECTS (EXCLUDING FLINT AND CHERT)

9.12.1 ***Task 11:*** to facilitate objective 8.

9.12.2 A publication report will be compiled from the results of the assessment, with an accompanying catalogue of artefacts.

9.13 OBJECTS OF BONE AND TEXTILE

9.13.1 ***Task 12:*** to facilitate objective 8.

9.13.2 A publication report will be compiled from the results of the assessment, with an accompanying catalogue of artefacts. Two bone objects will require illustration, and a photographic image of the textile produced.

9.14 THE INDUSTRIAL RESIDUES AND DEBRIS

9.14.1 ***Task 13:*** to facilitate objectives 3 and 8.

9.14.2 A publication report will be produced from the assessment data. This will involve the integration of the metalworking slag with the stratigraphic data.

9.15 ANIMAL BONE

9.15.1 ***Task 14:*** to facilitate objectives 6, 7 and 8.

9.15.2 A publication report will be compiled from the results of the assessment, with an accompanying catalogue. A visit will be made to the Natural History collection held at the Museum of Liverpool to refine the identification of the bird bone.

9.16 THE FISH BONE

9.16.1 ***Task 15:*** to facilitate objectives 5 and 6.

9.16.2 The residues and flots of samples 4 and 12, from pit fills ***35*** and ***77***, will be fully sorted for the recovery of fish remains, and the hand-collected bone will also be included in the analysis. The fish bone will be recorded and a report text produced.

9.17 MARINE MOLLUSCS

9.17.1 ***Task 16:*** to facilitate objectives 5 and 6.

9.17.2 The presence of marine molluscs and of parasites on these animals will be recorded. A brief discussion will consider the molluscs as a food resource and their likely source, to be incorporated into an appropriate section of the publication text.

9.18 BOTANICAL ANALYSIS

9.18.1 ***Task 17:*** to facilitate objective 3.

9.18.2 The assessment text will be adapted for inclusion in the final report.

9.19 PRODUCTION OF THE REPORT

9.19.1 ***Task 18 to 20:*** a draft publication text will be produced and edited. This will include a background to the project, and a discussion of the archaeology by chronological phase. Each phase will be accompanied with relevant plans and photographs, the finds reports will be accompanied with relevant illustrations, and the discussion will place the results in their wider regional context. The report will undergo in-house editing.

9.20 FINALISATION OF RESEARCH ARCHIVE

9.20.1 ***Task 21:*** the archive will be finalised for deposition at the Lancashire Record Office, and the finds deposited with the Lancashire Museums Service, in Lancaster.

9.20 MANAGEMENT

9.20.1 the post-excavation process will be overseen and monitored by a project manager, who will ensure the smooth running of the project, and that the analysis is undertaken according to the timetable. The project manager will also oversee academic quality, and edit the final text.

10. PUBLICATION SYNOPSIS

10.1 INTRODUCTION

10.1.1 Following the analysis and interpretation of the 2005 results, a text will be prepared for publication within a forthcoming Lancaster Imprints monograph on recent archaeological work in Lancaster.

10.2 THE STRUCTURE OF THE REPORT

10.2.1 The following section represents a likely breakdown of the proposed publication. It should be noted, however, that this synopsis can only be regarded as a draft, based on the current understanding of the archive.

10.2.2 The text will be supported by a number of graphics, comprising drawings and photographs to illustrate the evidence, tables to summarise data and, where appropriate, interpretative phase drawings. The finished article will aim to present a high degree of integration between both finds categories and the structural/stratigraphical history of the site.

10.3 OUTLINE SYNOPSIS

Summary	200
Introduction and circumstances of the project	250
Location: geology, topography and soils	500
Previous work	750
The results of the excavations by chronological phase	
The prehistoric and Romano-British periods	1000
The medieval period	1000
The Post-medieval residence 'The Friarage'	1000
The Post-medieval to twentieth century	1000
The finds and ecofacts	2000
The environmental analysis	750
Discussion	2000
Bibliography	-

11. RESOURCES AND PROGRAMMING

11.1 PROJECT TEAM

11.1.1 The project team will consist largely of OA North internal staff, with the use of selected external specialists. The quality assurance for the project will be maintained by OA North Director, Rachel Newman. The project is being managed by Mark Brennand.

11.1.2 The following Oxford Archaeology North and Oxford Archaeology staff will work on the project:

Name	Role	Organisation	
Andrew Bates	Project Officer/Animal Bone Specialist	OA North	AB
Mark Brennand	Project Manager	OA North	MB
Chris Howard-Davis	Finds Specialist	OA North	CHD
Elizabeth Huckerby	Environmental Archaeologist	OA North	EH
Sean McPhillips	Roman Pottery Specialist	OA North	SM
Ian Miller	Medieval Pottery Specialist	OA North	IM
Rachel Newman	Director	OA North	RMN
Rebecca Nicholson	Fish Bone Analyst	OA	RN
Adam Parsons	Finds Illustrator	OA North	AP
Rebekah Pressler	Post-Medieval Pottery Specialist	OA North	RP
Mark Tidmarsh	CAD technician/Illustrator	OA North	MT

11.2 MANAGEMENT

11.2.1 OA North places importance on the tight and effective management of the post-excavation stages of projects in order to deliver best value to our clients. An element of time is given over to on-going quality assurance and internal monitoring. This is part of our internal quality assurance system and ensures the prompt delivery of the agreed report on time and budget. Regular meetings are planned into the task list in order that the representatives of the client will be kept fully informed of the progress of the work.

11.2.2 In addition to the internal team structure, quality standards will be maintained by an external referee, who will appraise the quality of the report prior to publication.

11.3 HEALTH AND SAFETY

11.3.1 All OA North post-excavation work will be carried out under relevant Health and Safety Legislation, including Health and Safety at Work Act (1974). A copy of the Oxford Archaeology Health and Safety Policy can be supplied on request. The nature of the work means that the requirements of the following legislation are particularly relevant:

Workplace (Health, Safety and Welfare) Regulations (1992) – offices and finds processing areas;

Manual Handling Operations Regulations (1992) – transport of bulk finds and samples;

Health and Safety (Display Screen Equipment) Regulations (1992) – use of computers for word-processing and database work;

COSSH (1998) - finds conservation and environmental processing/analysis.

11.4 TASK LIST

11.4.1 The analysis and production of a text suitable for publication has been broken down into a series of tasks, which are set out in the Task List in *Appendix 5*.

11.5 TOTAL COSTS

11.5.1 The total cost quoted for the post-excavation is a fixed price which is inclusive of all management, overheads, and other disbursement costs (travel and expenses), to undertake the programme of work as defined in this project assessment. Any other variations from this programme of work at the client's direction will require recosting. All staff costs are inclusive of holiday entitlement, as well as NI and Superannuation.

- All costs are exclusive of VAT
- Salaries and wages inclusive of NI, Superannuation and overheads
- Project duration beyond 31 March 2007 will require adjustment for inflation.

11.5.2 The costs for publication assume that the results will be disseminated within a larger monograph produced by Oxford Archaeology North. The costs for printing, desk-top publishing and distribution costs are not included below, but a ball park estimate is offered and will be refined once the publication text has been completed.

Name	Day Rate	Days	Cost
Andrew Bates	145	10.25	1486.25
Mark Brennand	220	2.5	550
Chris Howard-Davis	200	4	800
Elizabeth Huckerby	200	1	200
Sean McPhillips	145	2	290
Ian Miller	220	6	1320
Rachel Newman	314	1	314
Rebecca Nicholson	145	2	290
Adam Parsons	120	6	720
Rebekah Pressler	121	4	484
Mark Tidmarsh	120	2	240
Finds/archive supervisor	121	0.5	60.50
Technician	105	1.5	52.50
Total Staff costs			**6938.25**
Travel			26
VAT			1218.74
Total costs			**8182.99**

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APPENDIX 1: PROJECT DESIGN

1 BACKGROUND

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Following a request by Lancaster City Council, Oxford Archaeology North (OA North) undertook an archaeological evaluation prior to the proposed demolition and redevelopment of Number 5 Dalton Square, Lancaster, Lancashire (centred on SD 4792 6161). This section of work was undertaken as part of a wider programme, which also comprised building investigation, and a desk-based assessment of the site. The evaluation work was undertaken on the 1st and 2nd of December 2004 (OA North forthcoming).

1.1.2 The site lies to the rear of Dalton Square, a late eighteenth century planned development, which occupies the western portion of lands belonging to a Dominican Friary, founded in 1260. Previous excavation at Numbers 3 and 7 Dalton Square, and on Sulyard Street to the north, have uncovered remains of the friary. The site is therefore located in an area of some archaeological potential. As a result of this, Lancashire County Archaeological Service (LCAS) recommended that the programme of works be undertaken prior to the planning application being considered.

1.1.3 The initial phase of evaluation involved the excavation of a single 5m by 3m trench in a private car park to the rear, and immediately east, of the main buildings. The excavation uncovered a substantial wall on a north/south alignment, approximately 0.5m below the current ground level, and constructed of roughly-dressed sandstone blocks bonded in lime mortar. The wall was constructed directly on a deposit of marl clay, which may indicate boggy open ground. Banked up against the wall were substantial deposits of loose stone and building debris containing predominantly eighteenth century pottery, which have been interpreted as demolition deposits relating to the clearance of the land in the eighteenth century for the construction of Dalton Square. Overlying these deposits were substantial garden soils, also containing eighteenth and nineteenth century pottery; these relate to the use of the land as gardens prior to its subsequent development in the nineteenth century. The land was subsequently converted to a car park in the twentieth century.

1.1.4 The evaluation results appear to indicate the survival of a probable element of the friary, in the form of a substantial wall, which may relate to the claustral wall for the friary complex. The absence of dating is problematic, but the wall certainly predates the eighteenth century as it is sealed by demolition deposits and garden soils relating to this period. The wall is also built directly onto what appears to be open land, which also suggests it could predate the subsequent development of the area. Whether the wall relates directly to the thirteenth century friary, or a later phase, is a question only answerable by further excavation.

1.1.5 The proposed new extensions to the rear of Number 5 Dalton Square will have a detrimental effect on the archaeological deposits which have been demonstrated to survive at around 0.5m below ground level. The impact of the development could destroy remains of the at-present little understood thirteenth century Dominican Friary. It is therefore recommended that full excavation be undertaken within the car park area in order to further inform the planning process.

1.1.6 The County Archaeological Officer was informed of the discoveries, and has recommended to Lancaster City Council that full archaeological recording should take place prior to any further construction work.

1.2 OXFORD ARCHAEOLOGY NORTH (OA NORTH)

1.2.1 OA North has considerable experience of the evaluation and excavation of sites of all periods, having undertaken a great number of small and large-scale projects throughout Northern England during the past 20 years. Evaluations, assessments, watching briefs and

excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North is an Institute of Field Archaeologists (IFA) registered organisation, number 17, and all its members of staff operate subject to the IFA Code of Conduct.

1.2.2 OA North has particular experience of the archaeology of Lancaster having undertaken numerous projects throughout the City over the last 17 years. Of most relevance is the excavation of the Mitchells Brewery site in 1999.

2 AIMS AND OBJECTIVES

2.1 ACADEMIC AIMS

2.1.1 The main research aim of the excavation will be to characterise the survival of the archaeological remains on the site.

2.1.2 Another major aim of the work will be to further our understanding of the development of medieval and post-medieval land-use in this part of Lancaster.

2.2 OBJECTIVES

2.2.1 The main objectives of the project are to relate the findings to the other known friary sites both locally and within the region, to establish whether structural evidence is present, and finally to date the elements of the site to establish whether any sequence is discernible.

2.3 POST-EXCAVATION AND REPORT PRODUCTION

2.3.1 The site records, finds and any samples from the excavation programme outlined below will form a checked and ordered site archive as outlined in the English Heritage guideline document *Management of Archaeological Projects* (2nd edition, 1991b) (hereafter MAP 2). Following compilation of the project archive a report will be produced assessing the potential of the archive (including the paper archive, the finds assemblage and any palaeoenvironmental samples that are taken) for further analysis as defined in MAP 2 Appendix 1. This post-excavation assessment report will make recommendations for further analysis and publication of the results, as appropriate.

3 METHODS STATEMENT

3.1 The following work programme is submitted in line with the aims and objectives summarised above.

3.2 Prior to the fieldwork commencing OA North will contact the client to obtain any information relating to live services on the site.

3.3 FIELDWORK

3.3.1 ***Excavation:*** the excavation will be undertaken within a working area of approximately 395msq within the footprint of the existing building and proposed development. This will take place following demolition of the existing building and removal of overburden from the site by the development contractor. The overburden will be removed by mechanical excavator fitted with a toothless ditching bucket **under strict archaeological supervision.**

3.3.2 Following completion of the overburden stripping the site will be cleaned by hand.. A mechanical excavator will only be utilised when any archaeological deposits have been fully recorded or to excavate deep features. Spoil from the excavation will be deposited at a safe distance around the edge of the open-area. If any archaeological features are exposed by this cleaning then the procedures set out in sections 3.3.3 *et seq* will be implemented.

3.3.3 Pits and postholes will be subject to a 50% by volume controlled stratigraphic excavation, with the remainder of the feature, should it prove necessary to be removed in entirety, excavated quickly keeping only that dating evidence which is securely derived from the feature in question.

3.3.4 Linear cut features, such as ditches and gullies, will be subject to a 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 keeping only that dating evidence which is securely derived from the feature in question.

3.3.5 ***Structural remains:*** the extent, nature, form and where possible, date of structural remains will be defined but **no structural remains will be excavated without prior consultation with LCAS**. If agreement is reached with LCAS for the excavation of structural remains then these will be excavated manually. Any hearths and/or internal features will be 100% sample excavated to provide information on their date and function, and the extent of any associated floor surfaces will be determined.

3.3.6 Any requirement to retain significant structural remains is likely to depend upon the method of construction of the proposed development and would be the decision of LCAS in consultation with the client. The necessity to conserve such remains would require separate costing and be in variation to this project design.

3.3.7 It should be noted that no archaeological deposits will be entirely removed from the site unless their excavation is necessary to reveal other features and/or deposits. If the excavation is to proceed below a depth of 1.2m then the sides will be stepped in. Cut features identified against the edges of the excavation will not be excavated below a safe working limit of 1.2m unless it is confirmed by the County Archaeologist that they are of exceptional importance. In such cases, if shoring is required then the costs for this will be derived from the contingency sum outlined below in section 6 or at the expense of the development contractor.

3.3.8 ***Deep Features:*** should any particularly deep-cut feature, such as a well pit, be revealed this will be manually excavated to 1.2m. Thereafter, if the County Archaeologist wishes to see the further excavation of any such feature, this could be achieved by reducing the general area of the feature (ie. a 1m 'cordon' around the feature) using a machine to allow further safe manual excavation. It should be noted, however, that recourse to such a methodology would incur additional costs, which would be derived from the contingency sum.

3.3.9 ***Recording:*** 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 Service of English Heritage, 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.

3.3.10 Results of all field investigations will be recorded on *pro forma* context sheets. A context index will be produced and an ongoing Harris matrix maintained. The site archive will include both a photographic record (see above *Section 3.3.9*) and accurate large-scale plans and sections at an appropriate scale (1:20 and 1:10). The numbered plans and

sections will be annotated with the relevant context numbers and an index of plans/sections will be produced.

3.3.11 All artefacts and ecofacts will be recorded using the same system, and, following on-site processing, will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration. Artefacts that require specialist conservation with be dealt with immediately. The need for specialist conservation would be subject to the contingency.

3.3.12 ***Environmental:*** environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from suitable deposits (ie. the deposits are reasonably well dated and are from contexts the derivation of which can be understood with a degree of confidence).

3.3.13 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs 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.

3.3.14 The position of the excavation will be recorded using a Total Station. The information will be tied in to OD and the height above sea level recorded.

3.3.15 ***Human Remains****:* any human remains uncovered will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. Lancashire Archaeological Service and the local Coroner will be informed immediately. If removal is essential the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. An application will be made by OA North for the study area on discovery of any such remains and the removal will be carried out with due care and sensitivity under the environmental health regulations, and if appropriate, in compliance with the 'Disused Burial Grounds (Amendment) Act, 1981.

3.3.16 ***Treasure:*** 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. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft.

3.4 ARCHIVE DEPOSITION

3.4.1 The results of the excavation 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* (UKIC 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.

3.4.2 The paper archive for the archaeological work undertaken at the site should be deposited with the Lancashire Record Office (Preston) and the finds with the Lancashire County Museum, although Lancaster City Museum will be consulted. The county museum meets MGC criteria for the long-term storage of archaeological material. Negotiations with the Lancashire County Museum will be commenced immediately upon award of contract.

3.4.3 Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to the receiving museum.

3.4.4 A synthesis (in the form of the index to the archive and a copy of the publication report) will be deposited with the Lancashire Sites and Monuments Record.

3.5 OTHER MATTERS

3.5.1 Access to the site will be arranged via the Client.

3.5.2 The development contractor will be responsible for back-filling the site.

3.5.3 On-site accommodation, in the form of an office space/messing facility and a portaloo will be provided by the development contractor. These will be located adjacent to the excavation.

3.5.4 The client is asked to provide OA North with information relating to the position of live services on the site and to issue a permit to dig. OA North will use a cable detecting tool in advance of any machine excavation.

3.5.5 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. It is not normal practice for OA North staff to be asked to work weekends or bank holidays and should the client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

3.6 HEALTH AND SAFETY

3.6.1 OA North provides a Health and Safety Statement for all projects and maintains a Unit 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 (1991). OA North will liase with the client to ensure all health and safety regulations are met. A risk assessment will be completed in advance of any on-site works.

3.6.2 All OA North staff will attend the contractor's safety induction. Safe working limits from standing structures are to be determined by the development contractor.

3.7 POST-EXCAVATION ASSESSMENT

3.7.1 Following completion of the fieldwork, the results will be collated and the site archive completed in accordance with English Heritage MAP 2, Appendix 3. A post-excavation assessment of the archive and the resource implications of the potential further analysis will be undertaken in accordance with English Heritage MAP2, Appendix 4. The stratigraphic data and the finds assemblage will be quantified and assessed, and the environmental samples processed and a brief assessment of their potential for further analysis made. The assessment results will be presented within a post-excavation assessment report, which will make recommendations for a schedule, time scale and programme of analysis in accordance with MAP2 Appendix 5.

3.8 ANALYSIS

3.8.1 A provisional programme of post-excavation analysis is anticipated. The extent of the programme, however, can only be reliably established on completion of the post-excavation-assessment report. Section 6 covers the estimated costs of the analysis. The proposed programme anticipates both analysis of the site stratigraphy and the artefactual/ecofactual evidence leading to the production of a final report.

3.9 PUBLICATION

3.9.1 It is anticipated that the results of the excavation will be worthy of publication. If possible, the publication text will be prepared in a suitable form for inclusion as a journal article in the appropriate journal as befits its academic status.

4 RESOURCES AND PROGRAMMING

4.1 STAFF PROPOSALS

4.1.1 Day to day management of the project will be undertaken by **Alison Plummer BSc (Hons)** (OA North Senior Project Manager) to whom all correspondence should be addressed.

4.1.2 The excavation will be directed by an OA North project officer or supervisor. OA North project officers and supervisors are experienced field archaeologists who have undertaken supervision of numerous small- and large-scale evaluation and excavation projects.

4.1.3 The site director will be assisted by a team of four archaeological assistants.

4.1.4 The processing and analysis of any palaeoenvironmental samples will be carried out by **Elizabeth Huckerby BA, MSc** (OA North project officer), who has extensive experience of the palaeoecology of the North West, having been one of the principal palaeoenvironmentalists in the English Heritage-funded North West Wetlands Survey.

4.1.5 Assessment of any general finds from the excavation will be undertaken by **Sean McPhillips BA**. Sean has worked as a finds supervisor for English Heritage and MOLAS on a number of occasions and has extensive knowledge concerning finds.

4.2 PROGRAMMING

4.2.1 A three to four week period is required to carry out the excavation of the 395sqm area. This includes one week of overburden stripping.

4.2.2 Processing and analysis of palaeoenvironmental samples is dependent on the number of samples taken and can not be predicted at this stage, but will be appraised at the assessment stage.

4.2.3 The project archive will be compiled and a MAP 2-style assessment report/updated project design will be produced within four months of the completion of the excavation fieldwork. A copy will be sent to the client and a further two copies to the County Archaeologist. The assessment report/updated project design will outline any requirement for further analysis of the excavation archive, naming all the specialists to be involved in the post-excavation analysis, and will summarise proposals for eventual publication of the excavation results.

5. PROJECT MONITORING

5.1 The project will be monitored by a representative of the County Archaeology Service, who will be kept informed of commencement of the work.

5.2 A preliminary meeting/discussion will be held with the County Archaeologist at the commencement of the project. Further meetings/discussions will be held during the course of the fieldwork, on completion of the fieldwork and commencement of the assessment, on completion of the assessment, and on completion of the analysis and final publication report detailing the results of the excavation.

5.3 OA North will ensure that any significant results are brought to the attention of the Client and the County Archaeologist as soon as is practically possible.

BIBLIOGRAPHY

English Heritage, 1991 *The Management of Archaeological Projects,* 2nd edn, London

Museums' and Galleries' Commission, 1992 *Standards in the museum care of archaeological collections*

OA North, 2005 *5 Dalton Square, Lancaster: Desk-based Assessment, Building Investigation and Evaluation*, unpubl client rep

United Kingdom Institute for Conservation (UKIC), 1990 *Guidelines for the preparation of archives for long-term storage*

APPENDIX 2: CONTEXT LIST

Context	Description
01	Natural drift geology
02	Marly clay deposit
03	Marly clay deposit
04	Demolition rubble (eighteenth century)
05	Sandstone wall (friary ?)
06	Imported garden soil (eighteenth to nineteenth century)
07	Car-park make-up layer
08	Car-park make-up layer
09	Possible medieval Pit
10	Fill of pit ***09*** - primary fill
11	Fill of pit ***09*** - deliberate backfill, including waste materials
12	Eighteenth/nineteenth-century linear feature
13	Fill of ***12*** - deliberate backfill
14	Eighteenth/nineteenth-century overburden
15	Posthole
16	Fill of ***15***; post-pipe
17	Fill of ***15*** - packing material
18	Eighteenth/nineteenth-century linear feature
19	Fill of ***19*** - deliberate backfill
20	Eighteenth/nineteenth-century linear feature
21	Fill of ***20*** - deliberate backfill
22	Eighteenth/nineteenth-century linear feature
23	Fill of ***22*** - deliberate backfill
24	Eighteenth/nineteenth-century linear feature
25	Secondary fill of ***24***
26	Primary fill of ***24***
27	Eighteenth/nineteenth-century linear feature
28	Fill of ***27*** - deliberate backfill
29	Eighteenth/nineteenth-century stone-filled sump
30	Fill of ***29***
31	Medieval rubbish pit
32	Fill of ***31***- primary fill
33	Fill of ***31*** - deliberate backfill
34	Fill of ***31*** - deliberate backfill
35	Fill of ***31*** - kitchen and hearth waste
36	Modern intrusion
37	Fill of ***36***
38	Natural depression
39	Fill of ***38***
40	Fill of ***31*** - primary fill
41	Fill of ***31*** - deliberate backfill
42	Fill of ***31*** - overburden compressed into top of pit
43	Number not allocated
44	Number not allocated
45	Number not allocated
46	Fill of ***48*** - deliberate backfill
47	Fill of ***48*** - secondary fill
48	Medieval rubbish pit
49	Medieval pit
50	Fill of ***49***
51	Fill of ***49***
52	Posthole?
53	Fill of ***52***
54	Fill of ***52***
55	Buried soil horizon – part of stratigraphic group ***177***
56	Medieval pit
57	Medieval rubbish pit
58	Medieval pit
59	Eighteenth/nineteenth-century sump
60	Stone lining at top of sump ***60***

61	Number not allocated
62	Eighteenth/nineteenth-century linear feature
63	Fill of ***62*** - deliberate backfill
64	Eighteenth/nineteenth-century linear feature
65	Fill of ***64*** - deliberate backfill
66	Eighteenth/nineteenth-century stone-filled pit
67	Primary fill of pit ***66***
68	Secondary fill of pit ***66***
69	Fill of pit ***66***
70	Uppermost fill of pit ***66***
71	Eighteenth/nineteenth-century linear feature
72	Fill of ***71*** - deliberate backfill
73	Eighteenth/nineteenth century linear feature
74	Fill of ***73*** - deliberate backfill
75	Eighteenth/nineteenth century linear feature
76	Fill of ***75*** - deliberate backfill
77	Secondary fill of ***57*** - deliberate backfill including high percentage of waste materials
78	Primary fill of ***57*** - deliberate backfill including high percentage of waste materials
79	Fill of ***56*** - deliberate backfill
80	Fill of ***58*** - secondary fill
81	Fill of ***58*** - secondary fill
82	Fill of ***58*** - primary fill
83	Fill of ***58*** - secondary fill
84	Fill of ***58*** - redeposited natural sand
85	Medieval pit - possibly quarry
86	Fill of ***85*** - secondary fill
87	Fill of ***85*** - redeposited natural sand
88	Fill of ***85*** - secondary fill
89	Eighteenth/nineteenth-century linear feature
90	Fill of ***89*** - deliberate backfill
91	Eighteenth/nineteenth-century linear feature
92	Fill of ***91*** - deliberate backfill
93	Primary fill of ***49***
94	Primary fill of ***49***
95	Secondary fill of ***49***
96	Fill of ***49*** - redeposited natural sand
97	Fill of ***49*** - deliberate backfill
98	Fill of ***49*** - redeposited natural sand, possibly deliberate backfill
99	Fill of ***58*** - redeposited natural sand
100	Fill of ***58*** - redeposited natural sand
101	Fill of ***58*** - primary fill
102	Fill of ***103*** - deliberate backfill
103	Eighteenth/nineteenth-century linear feature
104	Natural glacial till
105	Upper part of buried soil horizon - part of ***177***
106	Eighteenth/nineteenth-century wall - same as ***134***
107	Fill of ***123*** – post-medieval wall foundation
108	Medieval cobbled surface
109	Fill of ***170*** - eighteenth/nineteenth-century culvert
110	Fill of ***111***
111	Natural depression
112	Fill of ***113***
113	Natural depression
114	Eighteenth/nineteenth-century linear feature
115	Fill of ***114*** - deliberate backfill
116	Fill of ***117***
117	Eighteenth/nineteenth-century linear feature
118	Post-medieval linear feature
119	Fill of ***118*** - deposit of topsoil and manure
120	Possible garden feature; hot bed
121	Fill of ***120*** - deposit of topsoil and manure
122	Upper fill of ***120*** - redeposited topsoil
123	Construction cut for foundation ***107***
124	Upper part of buried soil horizon - part of ***177***
125	Possible garden feature; hot bed

126	Fill of ***125*** - deposit of topsoil and manure
127	Eighteenth/nineteenth-century linear drainage feature
128	Fill of ***127*** - deliberate backfill of ***127***
129	Disturbance of ***107*** by evaluation excavation
130	Fill of ***129***
131	Fill of ***123*** - packing around foundation ***107***
132	Fill of ***123*** - packing in core of foundation ***107***
133	Upper part of buried soil horizon - part of ***177***
134	Eighteenth/nineteenth-century wall of plot boundaries
135	Fill of ***123*** - levelling deposit between ***136*** and ***107***
136	Fill of ***123*** - rounded stone 'cobbled' base for foundation ***107***
137	Second part of buried soil horizon - part of ***178***
138	Part of buried soil horizon (***178***) - same as ***166***
139	Number not allocated
140	Fill of ***123*** - deposit of silt; effectively a variation in deposit ***135***
141	Small pit or posthole
142	Fill of ***141***
143	Fill of ***127*** - deliberate backfill
144	Stones originally associated with foundation ***150***
145	Upper part of buried soil horizon - part of ***178***
146	Upper part of buried soil horizon - part of ***178***
147	Linear concentrations of stone within layer ***105*** - possibly associated with garden clearance activity
148	Medieval posthole
149	Fill of ***148*** - includes likely packing stone
150	Fill of ***151*** - rounded stone 'cobbles' base for foundation
151	Construction cut of foundation
152	Fill of ***155*** - upper rounded stone 'cobbles'- base for foundation
153	Fill of ***155*** - silt deposit between ***152*** and ***154***
154	Fill of ***155*** - lower rounded stone 'cobbles'- base for foundation
155	Construction cut of foundation
156	Clay lens within ***105***
157	Fill of ***160*** - upper rounded stone 'cobbles'- base for foundation
158	Fill of ***160*** - layer of silt in places over ***157***
159	Fill of ***160*** - lower rounded stone 'cobbles'- base for foundation
160	Construction cut of foundation
161	Same as ***137***
162	Fill of ***163*** - burnt deposit, possibly base of stake
163	Possible stakehole
164	Number not allocated
165	Natural layer of stone below ***166*** (part of ***178***)
166	Part of buried soil horizon (***178***)
167	Stone-filled pit?
168	Fill of ***167*** - deliberate backfill
169	Interface between natural glacial till ***104*** and buried soil horizon ***165*** (part of ***178***)
170	Construction cut for culvert ***109***
171	Fill of ***170*** - deliberate backfill
172	Construction cut for wall ***106/134***
173	Fill of ***172*** - deliberate backfill
174	Fill o f ***48*** - sediment from adjacent pit ***58*** slumped into pit ***48***
175	Fill of ***176*** - deliberate backfill
176	Eighteenth/nineteenth-century linear feature
177	Group number for upper buried soil horizon - comprises ***55***, ***105***, ***124***, ***133*** and ***147***
178	Group number for lower buried soil horizon - comprises ***137***, ***138***, ***145***, ***146*** and ***166***

APPENDIX 3: MEDIEVAL POTTERY

Ctx/OR No	No	Wt (g)	Description	Date Range
10/1004	1	4	Single small Gritty ware body sherd	C12th – C13th
13/1290	1	5	Single small body sherd	Medieval
14/1069	2	19	Two body sherds from single Gritty ware vessel	C12th – C13th
14/1285	8	52	Small body sherds of Gritty (Docker), Lightly-Gritted and Partially-Reduced Grey wares	C12th – C14th
30/1288	2	25	One Lightly-Gritted ware body sherd with splashed olive-green lead glaze, and an oxidised fabric incorporating part of small rod handle	C13th – ?C15th
34/1184	2	6	Two small body sherds of two vessels, comprising partially-Reduced Grey ware and Lightly-Gritted ware	C13th – C14th
35/1279	4	70	Four sherds of coarse sandy vessel with slightly everted rim and sooting deposits, indicative of cooking pot	C12th – C13th
40/1182	1	15	Probably post-medieval body sherd	?C18th
46/1116	22	288	Group dominated by Lightly-Gritted wares with some Partially-Reduced Grey wares. Many sherds glazed, and occur as jug forms, with some rod handles	C13th – C14th
46/1156	165	1185	Large group of pottery dominated by Lightly-Gritted wares and Partially-Reduced grey wares. Several large fragments, representing substantial elements of individual vessels. Majority appear to have external surfaces glazed, and are likely to represent jug forms. Decoration limited	C13th – C14th
46/1189	65	369	Group dominated by Partially-Reduced grey ware body sherds, with some Lightly-Gritted wares. Several rim fragments indicative of jug forms, and many sherds glazed	C13th – C14th
46/1284	1	14	Single sherd of Lightly-Gritted ware vessel, incorporating a simple upright rim	C13th – C14th
46/1287	1	9	Single body sherd of Lightly-Gritted ware vessel with green lead glaze	C13th – C14th
50/1158	40	181	Group of small body sherds comprising Gritty, Lightly-Gritted, and Partially-Reduced Grey wares, with Lightly-Gritted wares predominating. Many fragments glazed. Some fragments almost certainly imported from outside the region	C12th – C15th
51/1212	4	20	Four small body sherds of Lightly-Gritted ware vessels	C13th – C14th
55/1291	1	10	Single Gritty ware body sherd	C12th – C13th
79/1190	5	147	Gritty and Lightly-Gritted ware vessels, including a vertical rod handle with splashed olive-green lead glaze	C12th – C13th
80/1085	21	271	Large sherds of Lightly-Gritted ware vessels, some bearing a yellow lead glaze. One sherd has an everted rim and a globular profile	C13th – C14th
80/1157	33	301	Predominantly Lightly-Gritted wares, many from single vessel. This appears to be a jug, with a rod handle	C13th – C14th
80/1185	31	458	Large group dominated by Lightly-Gritted ware vessels, with some Partially-Reduced wares. Forms include jugs and at least one pipkin	C13th – C14th
80/1202	77	749	Large group dominated by Lightly-Gritted ware vessels, with some Partially-Reduced wares. Forms include jugs and at least one pipkin	C13th – C14th
99/1208	1	4	Small body sherd of Partially-Reduced grey ware vessel	C13th – C14th
105/1067	25	151	Predominantly Lightly Gritted ware body sherds, some Partially-Reduced grey ware sherds, and a single rim sherd of a Gritty ware (Ellel) vessel. Several sherds decorated with olive-green lead glaze, and other sherds bear sooting deposits	C13th – C15th
105/1127	1	16	Single body sherd of a Partially-Reduced Grey ware, probably same vessel as ***149***/1072	C13th – C14th
105/1163	5	79	Lightly-Gritted and Partially-Reduced Grey ware body sherds	C13th – C14th
121/1293	1	66	Single sherd of a Partially-Reduced Grey ware strap handle, representing part of a jug	
124/1186	1	7	Single body sherd of Lightly Gritted ware vessel	C13th – C14th
126/1289	1	11	Single sherd of an oxidised vessel	?C14th – C15th
128/1089	1	11	Single unglazed Lightly-Gritted ware vessel body sherd	C13th – C14th
128/1107	4	13	Four small body sherds including Gritty wares and Partially-Reduced Grey wares	C12th – C14th
128/1121	1	48	Single sherd of ?tile with olive-green lead glaze	C13th – C14th
133/1080	2	11	One Lightly-Gritted and one Partially-Reduced body sherd	C13th – C14th
142/1128	3	16	Three small body sherds, single Gritty ware vessel	C12th –C14th
146/	4	19	Four small body sherds of Gritty and Lightly-Gritted ware vessels	C12th – C13th
147/1166	4	11	Four small body sherds, comprising Gritty (Docker) and Lightly-Gritted ware vessels	C12th – C13th
149/1072	7	31	Seven sherds of a single Partially-Reduced grey ware vessel, probably a shallow dish. Internal surface treated with yellow-green lead glaze	C13th – C14th
150/1118	1	18	Single Gritty ware body sherd with splashed green lead glaze	C12th – C13th
Unstrat/1292	1	44	Single large body sherd of Partially-Reduced Grey ware vessel with Olive-green lead glaze	Mid-C13th – 14th

APPENDIX 4: ENVIRONMENTAL REMAINS

Context	Sample	Vol (l)	Flot description	Plant remains	Potential
16	2	1	75ml. Charcoal (1), sand (4)		None
34	6	10	90ml. Charcoal (4), sand (4), fish bone (2), mammal bone (1), insect remains (1)		None
35	4	10	700ml. Charcoal (4), marine molluscs (4), fish bone (4), mammal bone (3), insect remains (1)	WPR (1) *Conium maculatum*	None
40	7	10	100ml. Charcoal (4), sand (4), fish bone (2), mammal bone (1)	WPR (1) *Corylus avellana.* CPR (1) legume	None
41	8	10	50ml. Charcoal (4), sand (4), mammal bone (2), fish bone (2)	WPR (1) *Persicaria lapathifolia*	None
47	3	3	25ml. Charcoal (4), sand (4), fish bone (2), mammal bone (1), insect remains (2)	CPR Cereals (1). WPR (2) *Sambucus nigra*, *Persicaria lapathifolia*, *Juncus*, Legume	None
50	14	10	75ml. Charcoal (4), sand (4), insect remains (1)	WPR (1) *Chrysanthemum segetum*	None
51	15	3	18ml. Charcoal (3), sand (4)	CPR (1) Cereals. WPR (1) *Corylus avellana*, *Persicaria lapathifolia*	None
55	35	8	50ml. Charcoal (3), sand (4)		None
77	12	10	700ml. Charcoal (4), mammal bone (4), fish bone (4), modern plant material (1), marine molluscs (4)	CPR (1) Cereals. WPR (1), *Agrostemma*	None
79	13	10	30ml. Charcoal (4), mammal bone (2)		None
80	9	10	25ml. Charcoal (4), sand (4),modern root (1), mammal bone (1), small pieces of thin glass (3)		None
86	10	10	100ml. Charcoal (4), sand (4), mammal bone (2), fish bone (1)		None
88	11	10	50ml. Charcoal (4), sand (4), mammal bone (2), small pieces of thin glass (2)		None
93	17	6	25ml. Sand (4), charcoal (3), wood (1), small pieces of thin glass (2)		None
95	18	10	50ml. Charcoal (4), sand (4), small pieces of thin glass (2)	CPR (1) Cereals	None
97	16	10	30ml. Charcoal (3), sand (4)	WPR (1) *Chrysanthemum segetum*	None
126	49	10	300ml. Charcoal (4), sand (4), fish bone (2)	WPR (1) *Chenopodium*, *Sambucus nigra*, *Fumaria*	None
133	22	10	85ml. Charcoal (4), sand (4), coal (10), mammal bone (2), fish bone (4), globular melted material (1)	CPR (1) Cereals. WPR (1) *Chenopodium*	None
133	42	10	50ml. Charcoal (3), sand (4), mammal bone (1)		None
133	38	10	50ml. Charcoal (4), fine grained sand (4), coal (1), mammal bone (1)	CPR (1) Cereal, legume	None
133	39	10	10ml. Charcoal (4), coal (1) mammal bone (1), insect remains (1)		None
133	41	10	10ml. Charcoal (4), sand (4), mammal bone (1), insect remains (1)		None
136	44	6	20ml. Charcoal (3), sand (4)		None
142	21	5	20ml. Charcoal (4), sand (4), coal (1) mammal bone (2), fish bone (2), insect remains (1)		None
145	37	10	50ml. Charcoal (4), sand (4)		None
145	36	10	20ml. Charcoal (3), sand (4)		None
146	28	10	20ml. Charcoal (3), sand (4)		None
149	24	10	50ml. Charcoal (4), sand (4), mammal bone (2), insect remains (1), globular melted material (1)	WPR (1) *Corylus avellana*	None
149	26	500ml.	25ml. Charcoal (4), sand (4)		None
149	25	10	30ml. Charcoal (4), sand (4), mammal bone (1)	CPR (1) Cereal	None
161	27	10	20ml. Charcoal (4), coal (1), sand (4)		None
162	29	2	40ml. Charcoal (4), sand (4), modern roots (1)		None
165	30	10	10ml. Charcoal (2), sand (4)		None
166	43	10	20ml. Charcoal (3), sand (4)		None
166	47	10	10ml. Charcoal (4), sand (4)	CPR (1) Cereal	None
166	40	10	50ml. Charcoal (3), sand (4), coal (1), mammal bone (1)		None
169	48	10	20ml. Charcoal (4), sand (4), mammal bone (1)		None
169	46	10	50ml. Charcoal (3), sand (4)		None
169	45	10	20ml. Charcoal (3), sand (4)		None

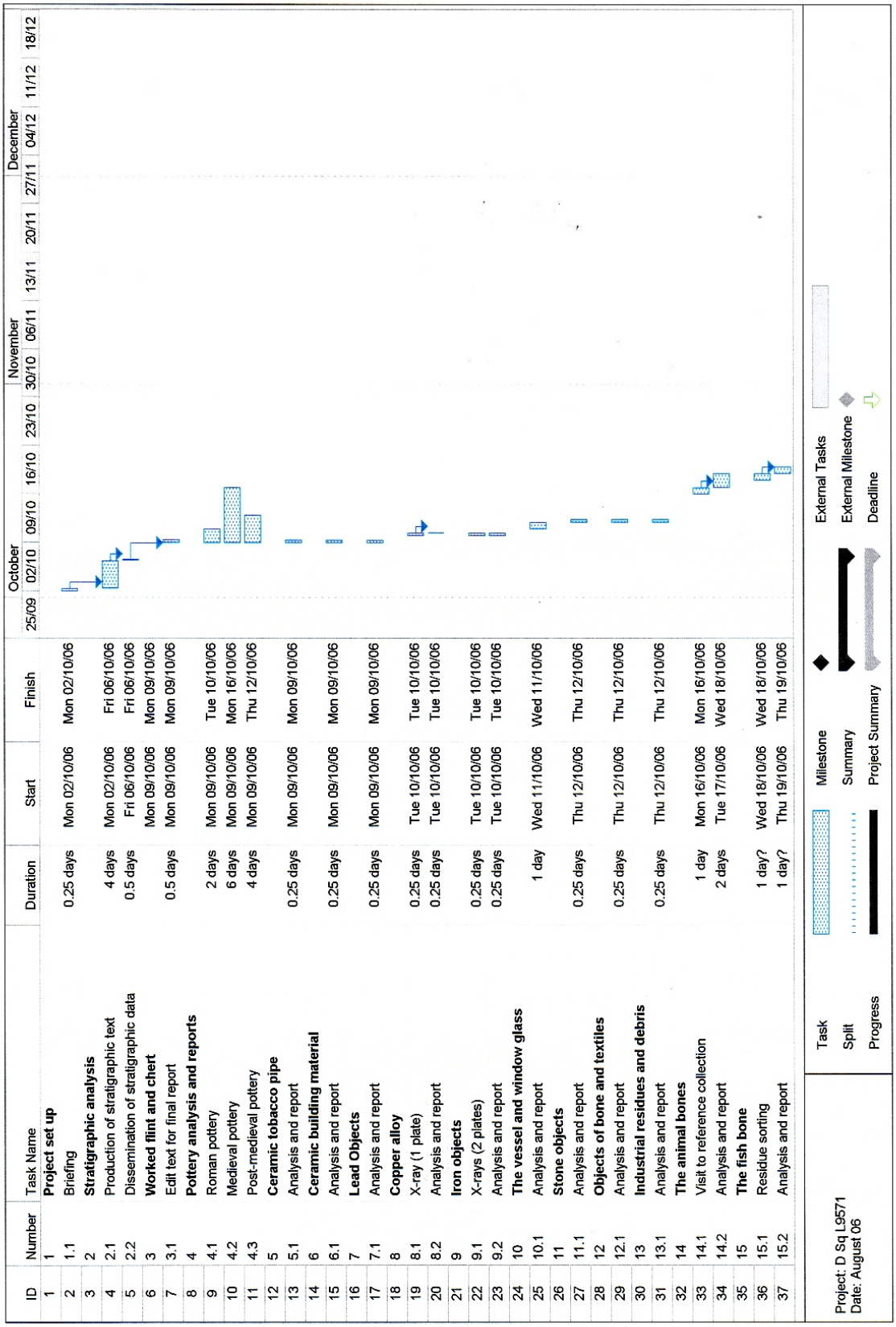
Plant remains scored on a scale of 1-4 where (1) is rare (1-5 items) and (4) is abundant (more than 100 items). Key CPR = charred plant remains. WPR = waterlogged plant remains.

APPENDIX 5: TASK LIST

No	Task	Days	Staff
1	**Project set-up**		
1.1	Briefing	0.25	AB
2	**Stratigraphic analysis**		
2.1	Production of stratigraphic text	4	AB
2.2	Dissemination of stratigraphic data	0.5	AB
3	**Worked flint and chert**		
3.1	Edit text for final report	0.5	MB
4	**Pottery analysis and reports**		
4.1	Roman pottery	2	SM
4.2	Medieval pottery	6	IM
4.3	Post-medieval pottery	4	RP
5	**Ceramic tobacco pipe**		
5.1	Analysis and report	0.25	CHD
6	**Ceramic building material**		
6.1	Analysis and report	0.25	CHD
7	**Lead Objects**		
7.1	Analysis and report	0.25	CHD
8	**Copper alloy**		
8.1	X-ray (1 plate)		
8.2	Analysis and report	0.25	CHD
9	**Iron objects**		
9.1	X-rays (2 plates)	0.25	CHD
9.2	Analysis and report	0.25	CHD
10	**The vessel and window glass**		
10.1	Analysis and report	1	CHD
11	**Stone objects**		
11.1	Analysis and report	0.25	CHD
12	**Objects of bone and textiles**		
12.1	Analysis and report	0.25	CHD
13	**Industrial residues and debris**		
13.1	Analysis and report	0.25	CHD
14	**The animal bones**		
14.1	Visit to reference collection	1	AB
14.2	Analysis and report	2	AB
15	**The fish bone**		
15.1	Residue sorting	1	Technician
15.2	Analysis and report	2	RN
16	**Marine Molluscs**		
16.1	Analysis and report	0.25	CHD
17	**Botanical analysis and report**		
17.1	Report	1	EH
18	**Production of text**		
18.1	Background	0.5	AB
18.2	Prehistoric phase	0.5	AB
18.3	Romano-British phase	0.5	AB
18.4	Medieval phase	1	AB
18.5	Post-medieval phase	1	AB
18.6	Discussion	2	AB
18.7	Bibliography	0.5	AB

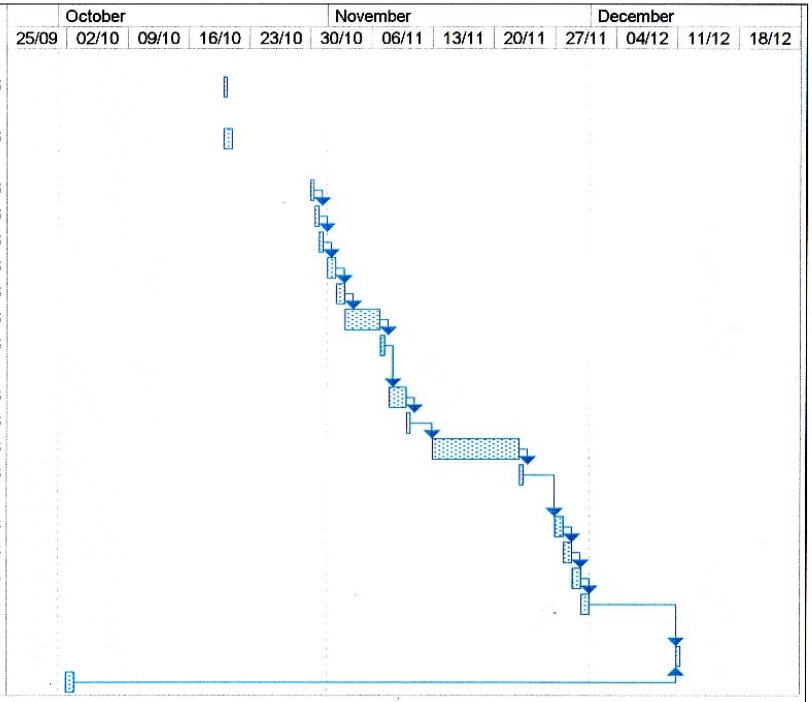
No	Task	Days	Staff
19	**Illustrations**		
19.1	Phase plans	2	MT
19.2	Photograph finds	0.5	Technician
19.3	Illustrate finds	8	AP
19.4	Select photographs	0.5	AB
20	**Editing**		
20.1	Editing	1	MB
20.2	Final edit/approval	1	RMN
20.3	Corrections	1	AB
20.4	Illustration corrections	1	AP
21	**Finalisation of Research archive**		
21.1	Update and deposit archive	0.5	Archive manager
22	Management (to run concurrently)	1	MB

APPENDIX 6: GANTT CHART



ID	Number	Task Name	Duration	Start	Finish
1	1	**Project set up**	0.25 days	Mon 02/10/06	Mon 02/10/06
2	1.1	Briefing	0.25 days	Mon 02/10/06	Mon 02/10/06
3	2	**Stratigraphic analysis**	4 days	Mon 02/10/06	Fri 06/10/06
4	2.1	Production of stratigraphic text	4 days	Mon 02/10/06	Fri 06/10/06
5	2.2	Dissemination of stratigraphic data	0.5 days	Fri 06/10/06	Fri 06/10/06
6	3	**Worked flint and chert**		Mon 09/10/06	Mon 09/10/06
7	3.1	Edit text for final report	0.5 days	Mon 09/10/06	Mon 09/10/06
8	4	**Pottery analysis and reports**	2 days	Mon 09/10/06	Tue 10/10/06
9	4.1	Roman pottery	6 days	Mon 09/10/06	Mon 16/10/06
10	4.2	Medieval pottery	4 days	Mon 09/10/06	Thu 12/10/06
11	4.3	Post-medieval pottery	0.25 days	Mon 09/10/06	Mon 09/10/06
12	5	**Ceramic tobacco pipe**	0.25 days	Mon 09/10/06	Mon 09/10/06
13	5.1	Analysis and report	0.25 days	Mon 09/10/06	Mon 09/10/06
14	6	**Ceramic building material**	0.25 days	Mon 09/10/06	Mon 09/10/06
15	6.1	Analysis and report	0.25 days	Mon 09/10/06	Mon 09/10/06
16	7	**Lead Objects**	0.25 days	Tue 10/10/06	Tue 10/10/06
17	7.1	Analysis and report	0.25 days	Tue 10/10/06	Tue 10/10/06
18	8	**Copper alloy**	0.25 days	Tue 10/10/06	Tue 10/10/06
19	8.1	X-ray (1 plate)	0.25 days	Tue 10/10/06	Tue 10/10/06
20	8.2	Analysis and report	0.25 days	Tue 10/10/06	Tue 10/10/06
21	9	**Iron objects**	0.25 days	Tue 10/10/06	Tue 10/10/06
22	9.1	X-rays (2 plates)	0.25 days	Tue 10/10/06	Tue 10/10/06
23	9.2	Analysis and report	1 day	Wed 11/10/06	Wed 11/10/06
24	10	**The vessel and window glass**	0.25 days	Thu 12/10/06	Thu 12/10/06
25	10.1	Analysis and report	0.25 days	Thu 12/10/06	Thu 12/10/06
26	11	**Stone objects**	0.25 days	Thu 12/10/06	Thu 12/10/06
27	11.1	Analysis and report	0.25 days	Thu 12/10/06	Thu 12/10/06
28	12	**Objects of bone and textiles**	0.25 days	Thu 12/10/06	Thu 12/10/06
29	12.1	Analysis and report	0.25 days	Thu 12/10/06	Thu 12/10/06
30	13	**Industrial residues and debris**	0.25 days	Thu 12/10/06	Thu 12/10/06
31	13.1	Analysis and report	0.25 days	Thu 12/10/06	Thu 12/10/06
32	14	**The animal bones**	1 day	Mon 16/10/06	Mon 16/10/06
33	14.1	Visit to reference collection	2 days	Tue 17/10/06	Wed 18/10/06
34	14.2	Analysis and report	1 day?	Wed 18/10/06	Wed 18/10/06
35	15	**The fish bone**	1 day?	Thu 19/10/06	Thu 19/10/06
36	15.1	Residue sorting			
37	15.2	Analysis and report			

ID	Number	Task Name	Duration	Start	Finish
38	16	**Marine Molluscs**			
39	16.1	Analysis and report	0.25 days	Fri 20/10/06	Fri 20/10/06
40	17	**Botanical analysis and report**			
41	17.1	Final report	1 day	Fri 20/10/06	Fri 20/10/06
42	18	**Production of text**			
43	18.1	Background	0.5 days	Mon 30/10/06	Mon 30/10/06
44	18.2	Prehistoric phase	0.5 days	Mon 30/10/06	Mon 30/10/06
45	18.3	Romano-British phase	0.5 days	Tue 31/10/06	Tue 31/10/06
46	18.4	Medieval phase	1 day	Wed 01/11/06	Wed 01/11/06
47	18.5	Post-medieval phase	1 day	Thu 02/11/06	Thu 02/11/06
48	18.6	Discussion	2 days	Fri 03/11/06	Mon 06/11/06
49	18.7	Bibliography	0.5 days	Tue 07/11/06	Tue 07/11/06
50	19	**Illustrations**			
51	19.1	Phase plans	2 days	Wed 08/11/06	Thu 09/11/06
52	19.2	Photograph finds	0.5 days	Fri 10/11/06	Fri 10/11/06
53	19.3	Illustrate finds	8 days	Mon 13/11/06	Wed 22/11/06
54	19.4	Select photographs	0.5 days	Thu 23/11/06	Thu 23/11/06
55	20	**Editing**			
56	20.1	Editing	1 day	Mon 27/11/06	Mon 27/11/06
57	20.2	Final edit/approval	1 day	Tue 28/11/06	Tue 28/11/06
58	20.3	Corrections	1 day	Wed 29/11/06	Wed 29/11/06
59	20.4	Illustration corrections	1 day	Thu 30/11/06	Thu 30/11/06
60	21	**Finalisation of Research archive**			
61	21.1	Update and deposit archive	0.5 days	Mon 11/12/06	Mon 11/12/06
62	22	**Management (to run concurrently)**	1 day		



Project: D Sq L9571
Date: August 06

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

13. ILLUSTRATIONS

13.1 FIGURES

Figure 1: Site location

Figure 2: North-facing section through buried soil horizon ***133***, ***165*** and ***169***

Figure 3: Distribution of medieval features within the eastern trench

Figure 4: Distribution of medieval features within the western trench

Figure 5: South-facing section through pits ***48***, ***57***, ***58***, ***66***, ***85*** and ***103***

Figure 6: East-facing section through pit ***31***, and West-facing section through pit ***49***

Figure 7: South-east-facing section through pit ***9***, north-east-facing section through posthole ***15***, and south-facing section through pit ***31***

Figure 8: North-facing section (50) through buried soil horizon and medieval cobbled surface (***108***), showing location of monolith samples

Figure 9: Distribution of post-medieval features within the eastern trench

Figure 10: Sections through wall construction cut ***123***

Figure 11: Distribution of post-medieval features within the western trench

13.2 PLATES:

Plate 1: Buried soil horizon ***169, 177*** and ***178***, and its interface with the natural geology, undergoing sampling

Plate 2: Medieval pit ***49***

Plate 3: Medieval cobbled surface ***108***

Plate 4: Foundation ***123***, of the post-medieval structure 'The Friers'

Plate 5: Culvert ***109***

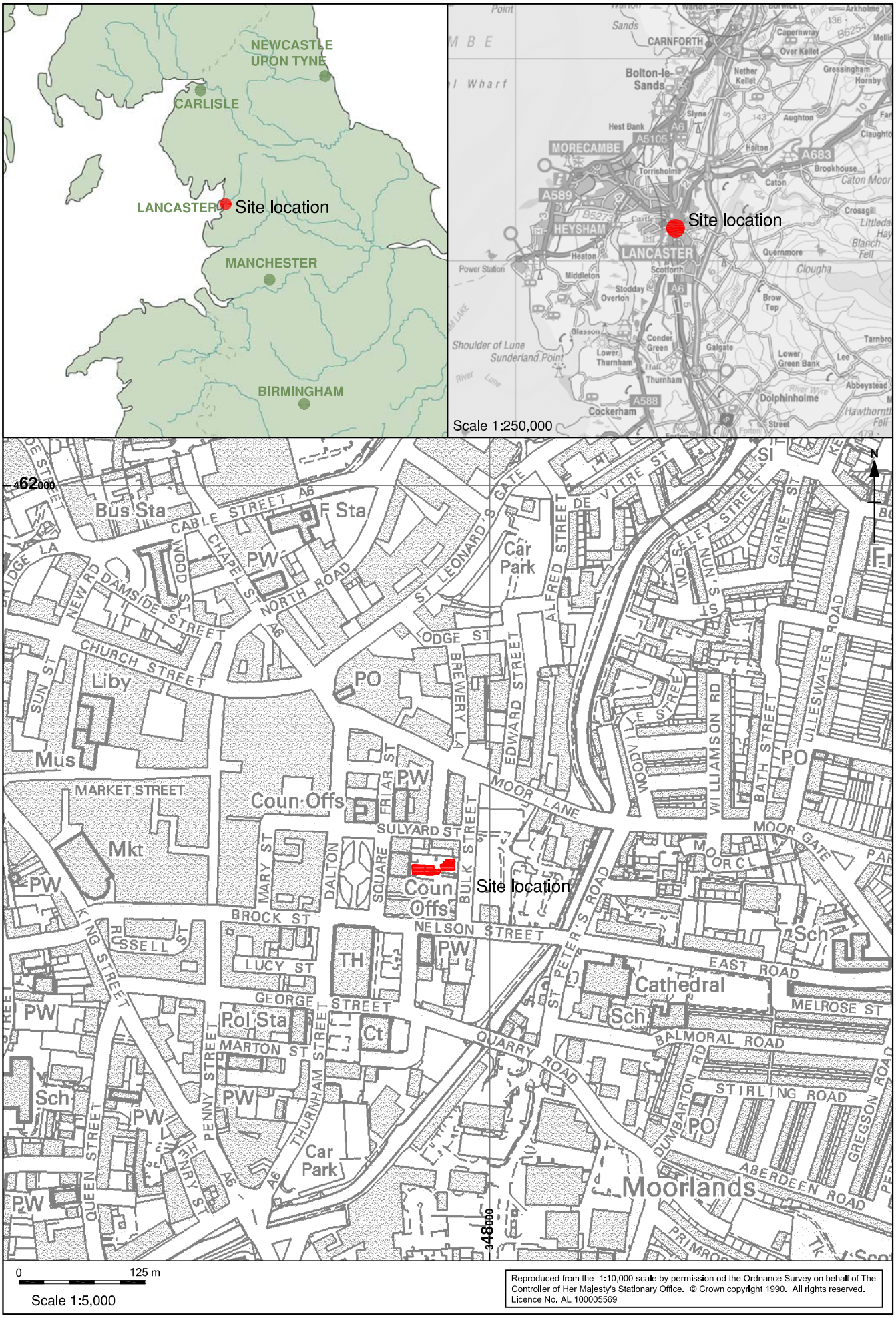


Figure 1: Site Location

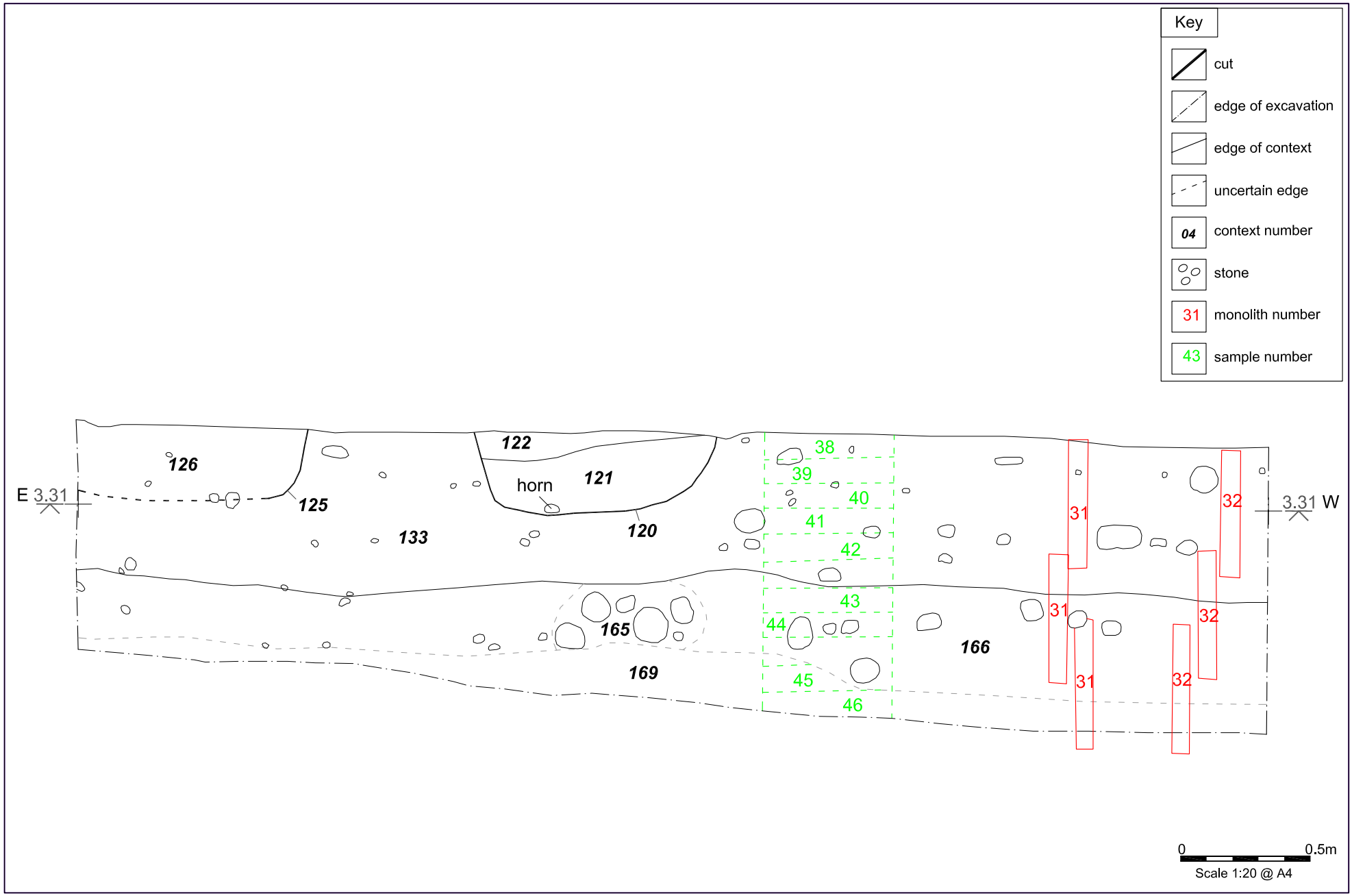


Figure 2: North-facing section through buried soil horizon ***133***, ***165*** and ***169***

Figure 3: Distribution of medieval features within the eastern trench

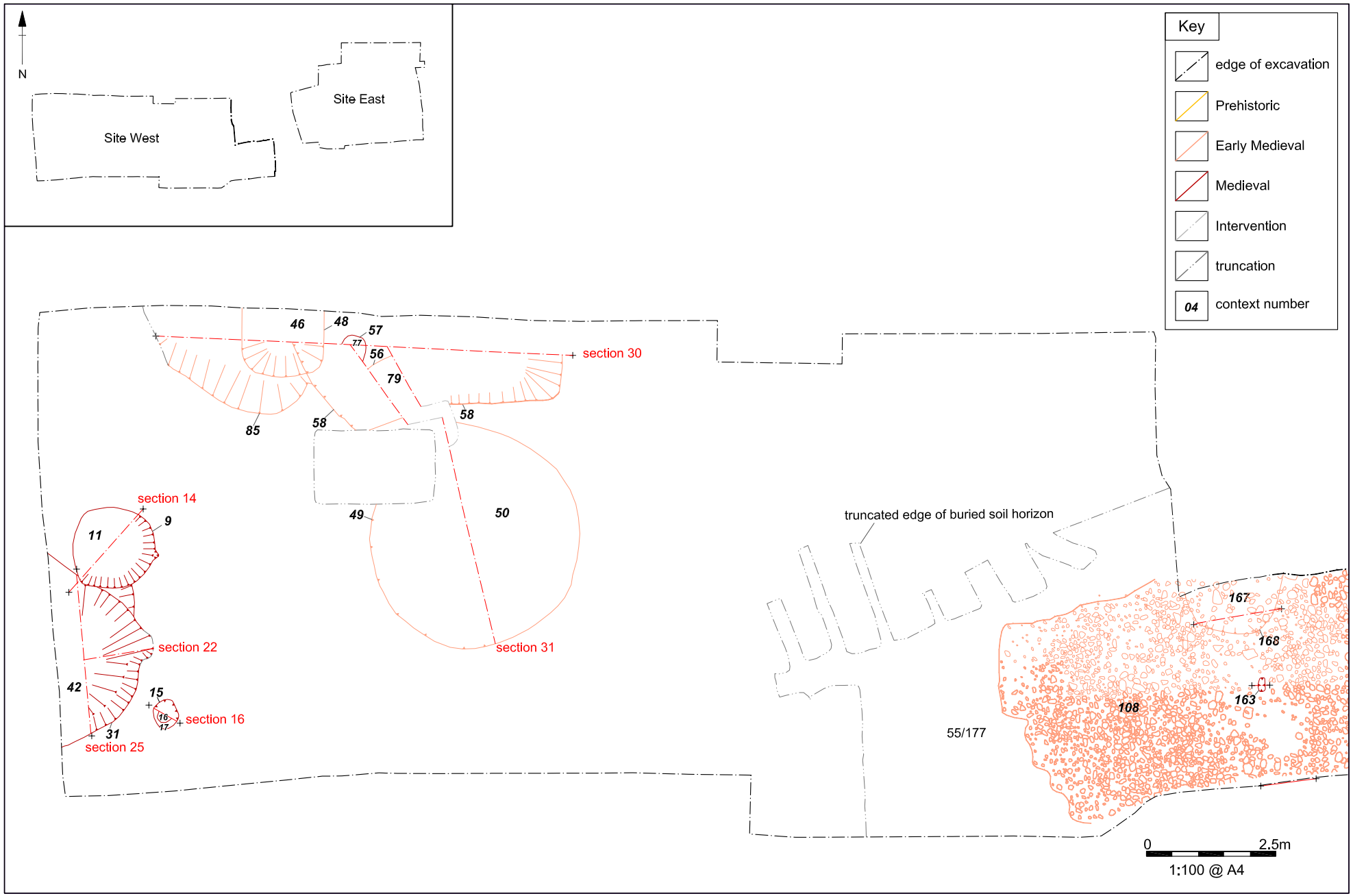


Figure 4: Distribution of medieval features within the western trench

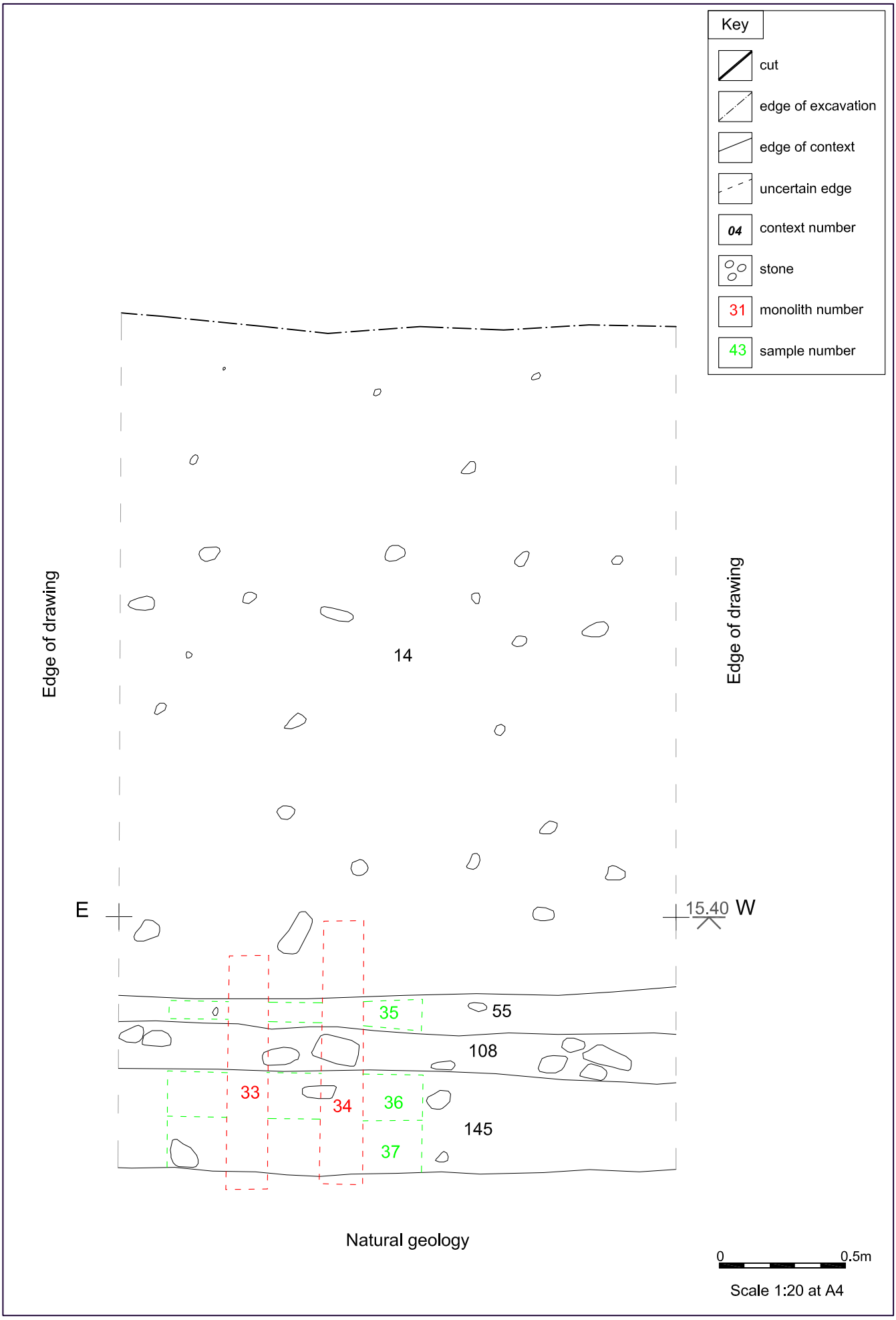


Figure 8: North-facing section (50) through buried soil horizon and medieval cobbled surface (***108***), showing location of monolith samples

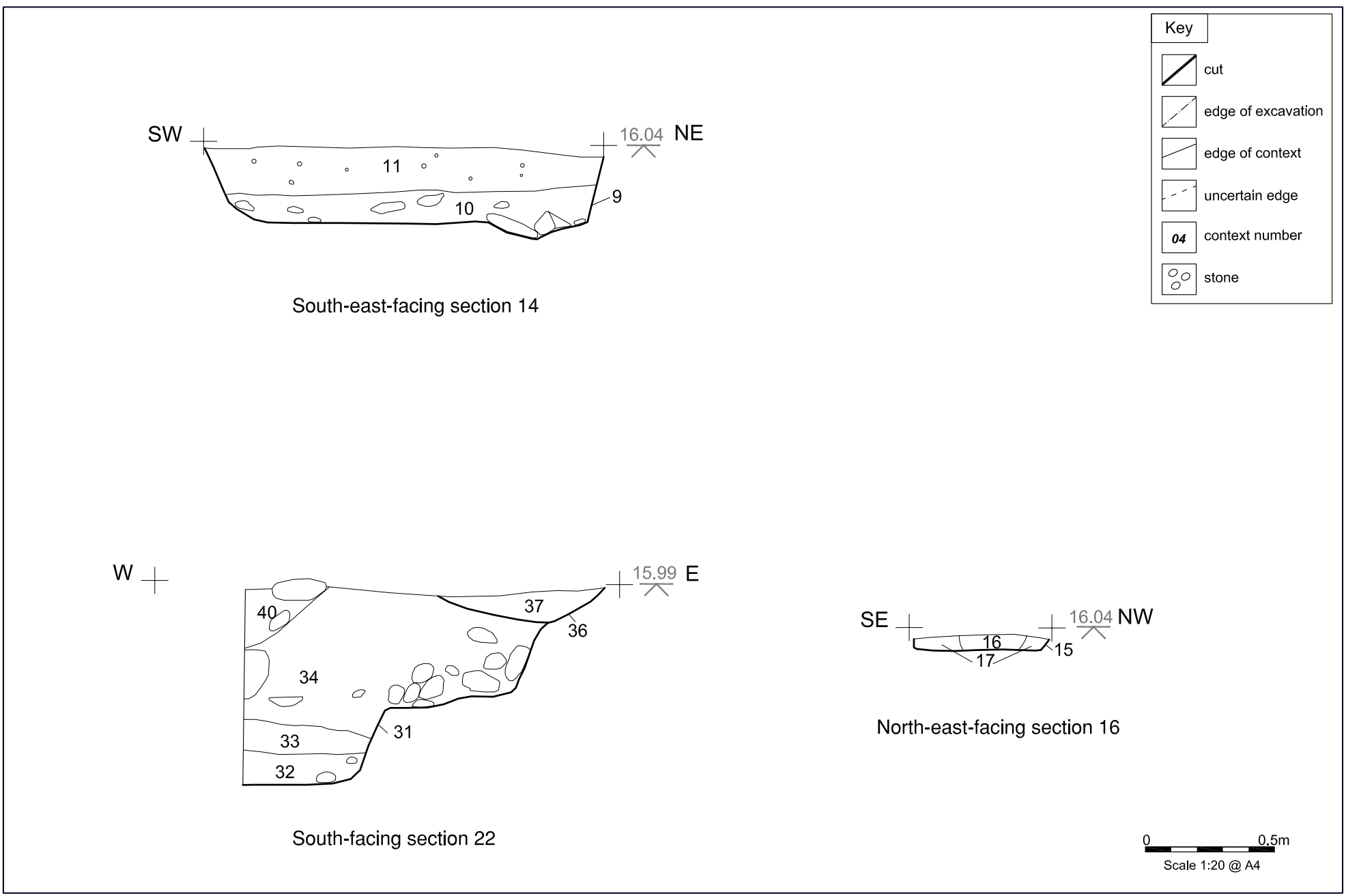


Figure 7: South-east-facing section through pit ***9***, north-east-facing section through posthole ***15***, and south-facing section through pit ***31***

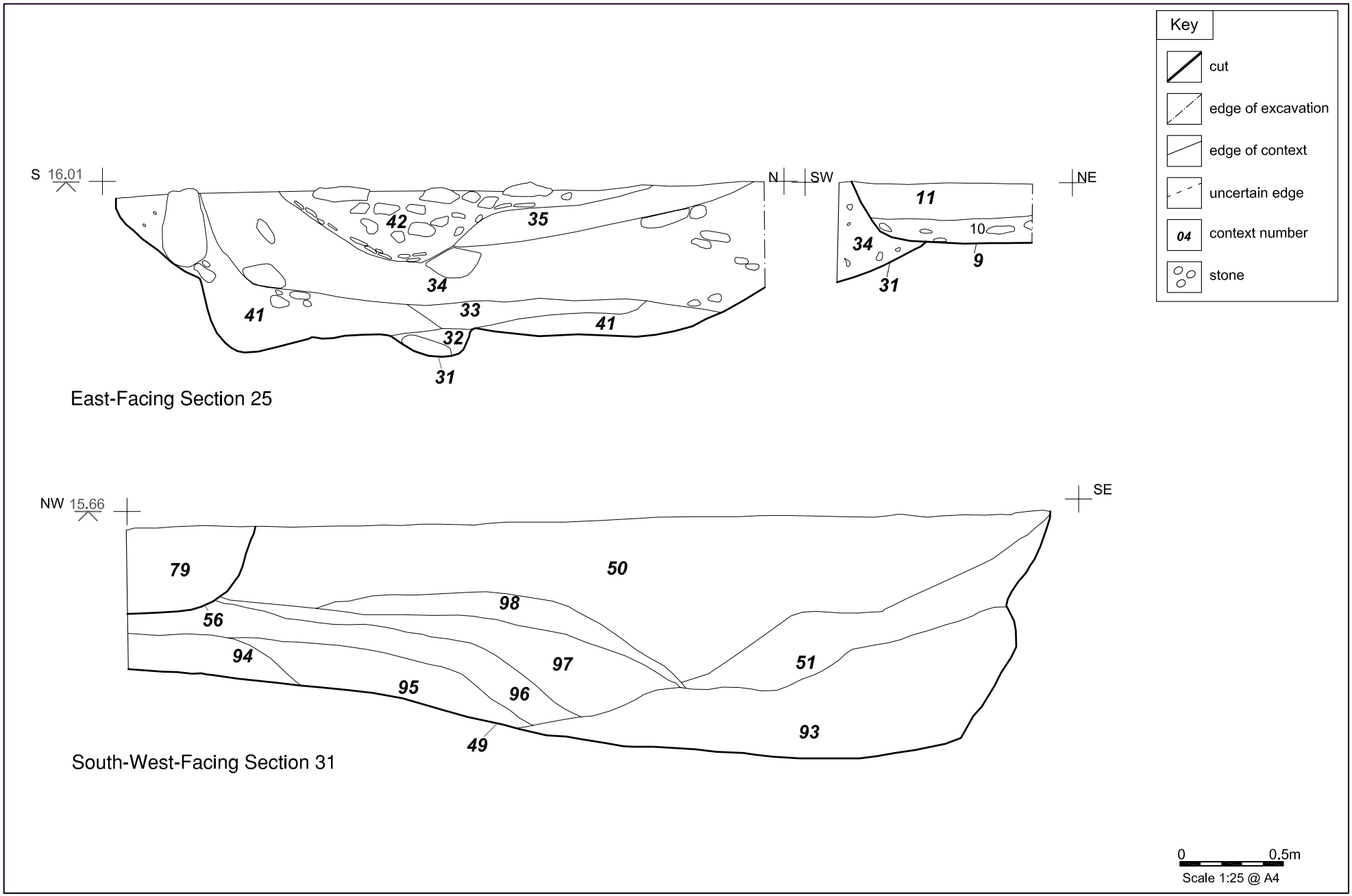


Figure 6: East-facing section through pit ***31***, and West-facing section through pit ***49***

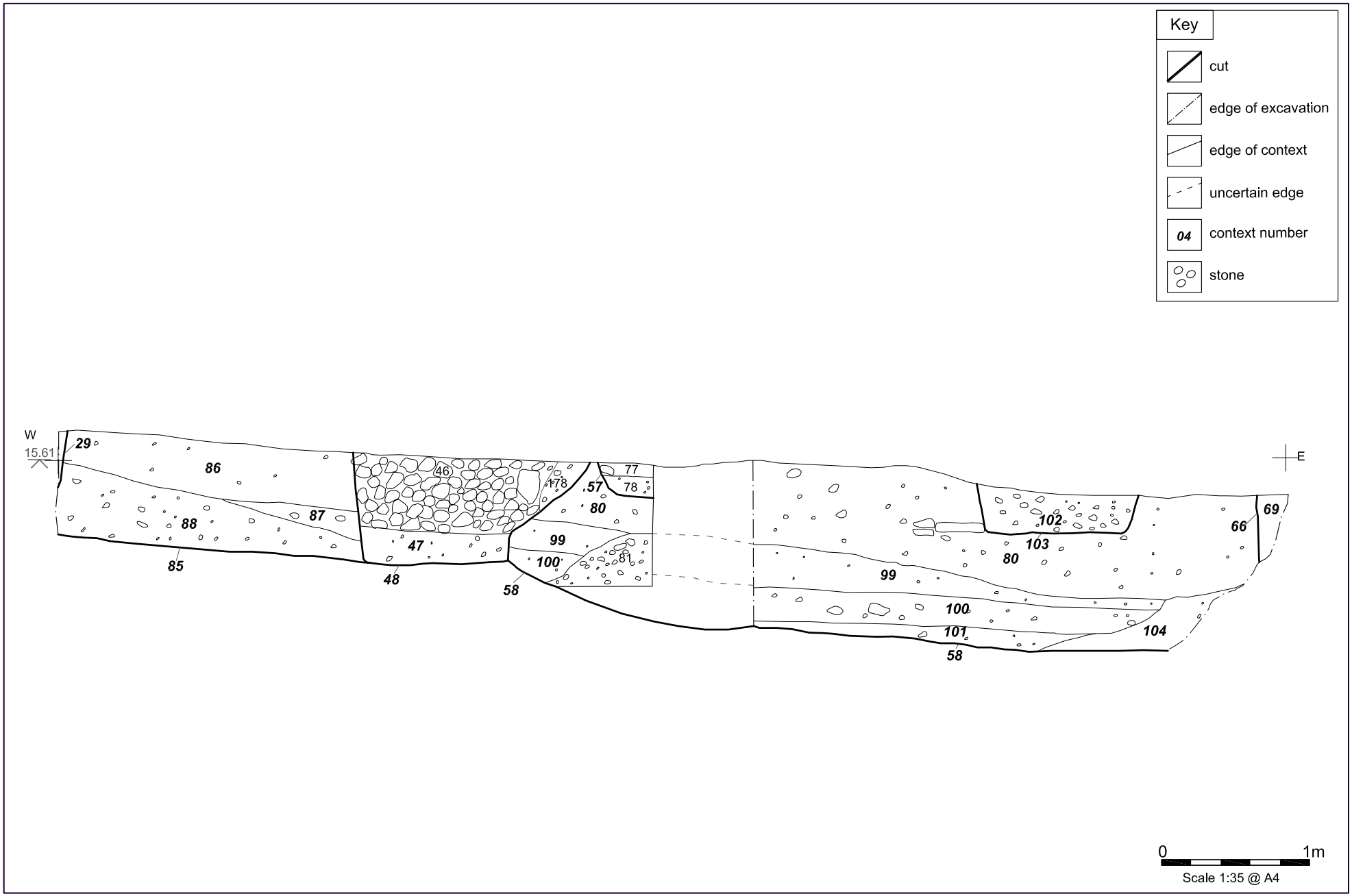


Figure 5: South-facing sections through pits ***48***, ***57, 58, 66, 85*** and ***103***

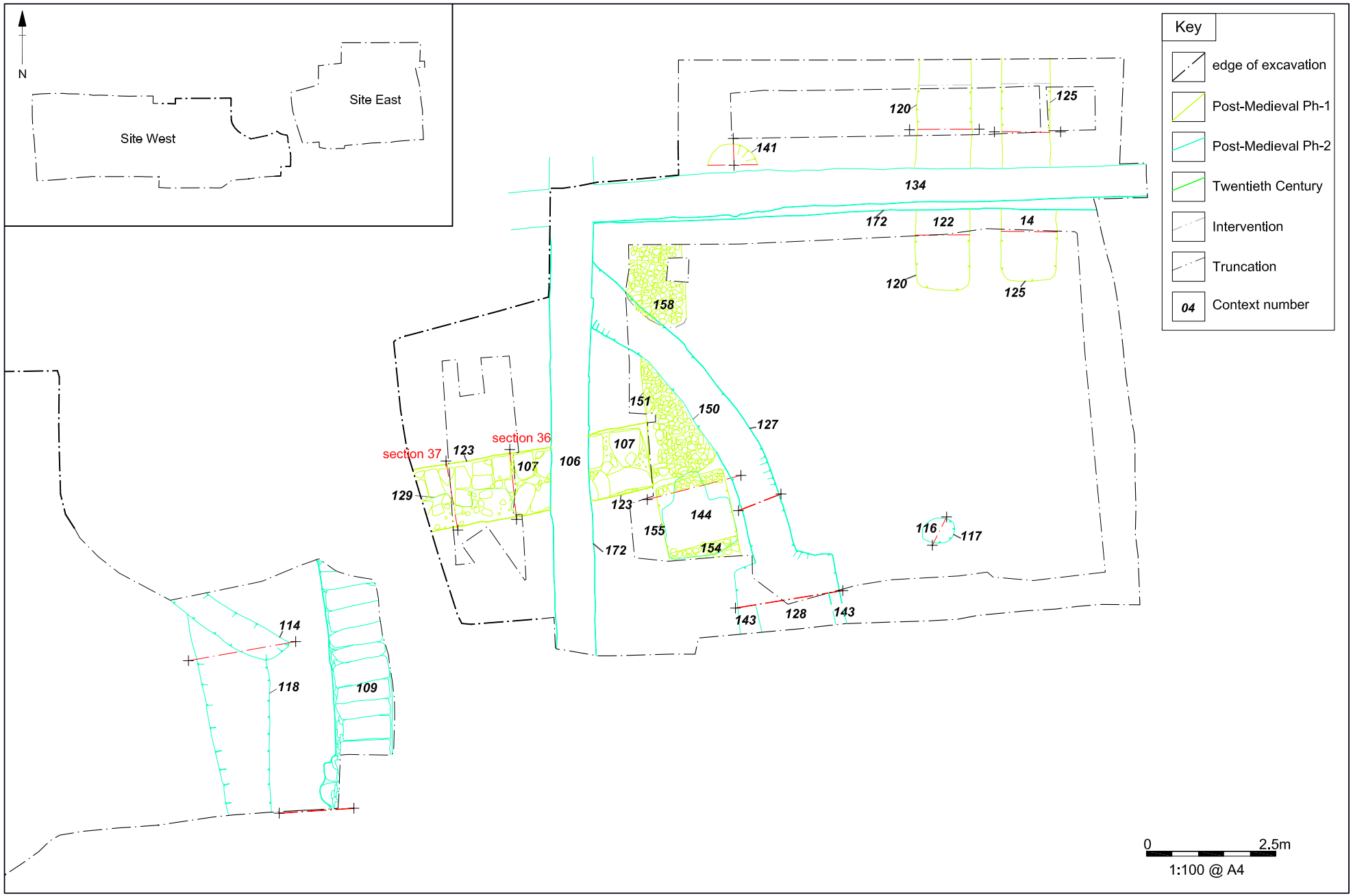


Figure 9: Distribution of post-medieval features within the eastern trench

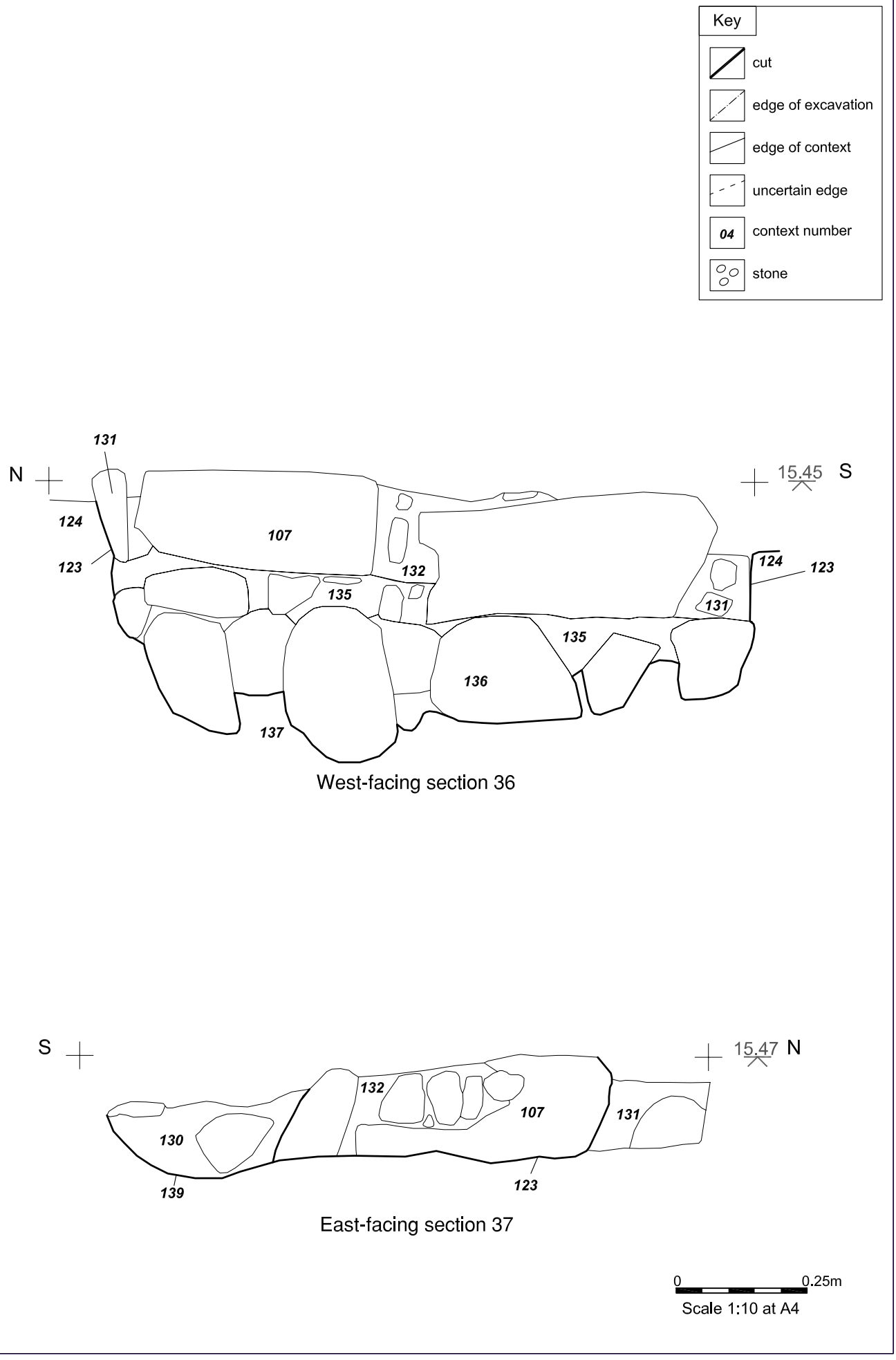


Figure 10: West-facing section through wall construction cut ***123***

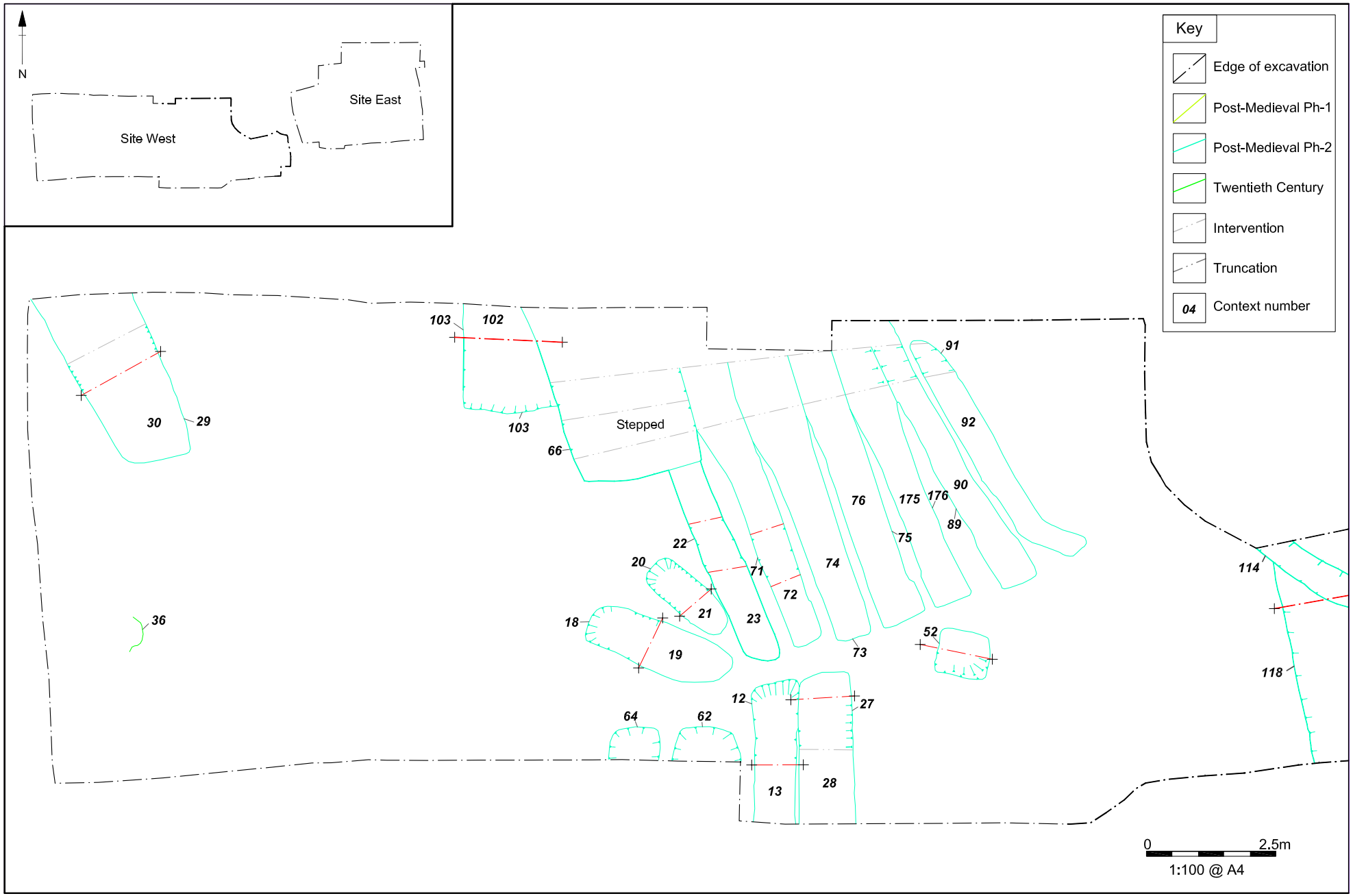


Figure 11: Distribution of post-medieval features within the western trench

Plate 1: Buried soil horizon ***SG169, SG177*** and ***SG178*** being sampled

Plate 2: Medieval pit ***49***

Plate 3: Medieval cobbled surface ***108***

Plate 4: Foundation ***123***, of the post-medieval structure “The Friers”

Plate 5: Culvert ***106***