



# CARLISLE CITY CENTRE CUMBRIA

## Archaeological Watching Brief



**Oxford Archaeology North**

December 2006

**Balfour Beatty Utility  
Services**

Issue No: 2006-7/498

OAN Job No: L9646

NGR: NY 4009 5613 and NY  
3949 5590

**Document Title:** CARLISLE CITY CENTRE, CUMBRIA

**Document Type:** Archaeological Watching Brief

**Client Name:** Balfour Beatty Utility Services

**Issue Number:** 2006-7/498

**OA Job Number:** L9646

**Site Code:** CCC06

**National Grid Reference:** NY 39970 55970

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## SUMMARY

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During the months of January to June 2006 Oxford Archaeology North undertook a series of archaeological watching briefs within Carlisle City Centre, Cumbria, along various streets between Georgian Way to the east and West Walls to the west (centred on NY 39970 55970). The work was undertaken on behalf of Balfour Beatty Utility Services during the refurbishment of an existing water main throughout central Carlisle. The aim of the watching brief was to establish the existence and location of any previously unknown surviving archaeological remains exposed during the course of refurbishment works associated with the water supply to Carlisle town centre.

Despite a small but unknown number of trenches being opened and backfilled in the absence of an archaeologist, the excavation of 307 trenches was undertaken in the presence of an archaeologist. These were distributed within 27 roads throughout the city centre. For the majority of the trenches, 303 in total, the excavation was contained within the modern backfill of the pre-existing water pipe trench. Only the excavation of four of the trenches revealed natural geological deposits sealed by modern material.

Finds were recovered from fourteen of the trenches, including degraded human bone and a copper alloy sewing needle both retrieved from Paternoster Row. However, all were from unstratified deposits and no archaeologically significant inferences can be drawn from their presence. No significant archaeological horizons were encountered during the duration of the works.



## ACKNOWLEDGEMENTS

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OA North would like to express its thanks to Balfour Beatty Utility Services for commissioning the project and to Paul Burns and colleagues of Balfour Beatty for their assistance during the works. David Tonks and Andy Bates carried out the fieldwork. The report was written by David Tonks, with the finds being examined by Sean McPhillips. Drawings were compiled by Mark Tidmarsh. Alison Plummer was responsible for project management and report editing.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Oxford Archaeology North (OA North) undertook a series of archaeological watching briefs during the months of January to June 2006 on behalf of Balfour Beatty Utility Services, during the refurbishment of the water main network in central Carlisle (centred on NY 39970 55970; Figs 1 and 2).
- 1.1.2 The water main network runs through an area of high archaeological potential, and potentially affects a number of known sites. The Cumbria County Archaeology Service (CCAS) issued a verbal brief for a programme of archaeological work to be undertaken during the development works. The programme involved a watching brief during the opening of launch and retrieval trenches along the line of the existing cast-iron water-pipe. This report sets out the results of the watching brief in the form of a short document.

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## 2. METHODOLOGY

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### 2.1 WATCHING BRIEF

- 2.1.1 The work undertaken followed the method statement detailed in the project design (*Appendix 1*) and complied with current legislation and accepted best practice, including the Code of Conduct and the relevant professional standards of the Institute of Field Archaeologists (IFA). There was close liaison between OA North staff and the site contractors.
- 2.1.2 The programme of field observation recorded accurately the location, extent, and character of any surviving archaeological features. This work comprised observation during the groundworks, the examination of any horizons exposed, and the accurate recording of all archaeological features, horizons and any artefacts found during the excavations. The launch and retrieval trenches were excavated using a combination of mechanical excavator and manual digging.
- 2.1.3 The recording comprised a full description and preliminary classification of features or structures revealed on OA North *pro-forma* sheets, and their location in plan. In addition, a photographic record in colour slide and monochrome formats was compiled.

### 2.2 ARCHIVE

- 2.2.1 A full archive of the work undertaken has been produced to a professional standard in accordance with current English Heritage guidelines (English Heritage 1991). The archive will be deposited in the Cumbria County Record Office in Carlisle, and a copy of the report will be forwarded to the Cumbria County Sites and Monuments Record Office in Kendal. The finds will be deposited with the Tullie House Museum.

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## 3. BACKGROUND

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### 3.1 SITE LOCATION

- 3.1.1 The trenches (Fig 2) were located along various streets within the general centre of Carlisle. These were situated between Georgian Way to the east and West Walls to the west.

### 3.2 GEOLOGY

- 3.2.1 The underlying solid geology of the area consists mainly of mudstones and sandstones of Permo-Triassic age. They were deposited under the marine conditions of the period, between 280 and 195 million years ago. The most important sandstone formation, the St Bees Sandstone, has been much quarried for use as building stone, and has imparted a distinctive character to much of the area's architecture (Countryside Commission 1998, 20). The overlying drift geology comprises glacial deposits with some fluvial sediments along the Caldew and the Petteril valleys. The soils of the development area are not well-mapped, since the area is urban in nature, however, where seen they have been determined to be stagnogley argilic brown earths of the Salwick soil association (Lawes Agricultural Trust 1983). A series of boreholes were undertaken in the town centre in the 1960s, which revealed made ground overlying boulder clay overlying bedrock (LUAU 2001).

### 3.3 TOPOGRAPHY

- 3.3.1 Carlisle is located on the valley floor of the River Eden, and the city developed between the river and its tributaries, the Caldew and the Petteril. The study area lies within and west of the medieval walled city, the city walls on the west side being positioned along the top of the scarp slope above the Caldew. The Roman and medieval towns of Carlisle stand on raised boulder clay glacial drift deposits, which overlie the alluvial silts and clays of the Eden and Caldew rivers (Young 1990, 2-4). The study area lies at about 16m OD, (above Ordnance Datum).

### 3.4 HISTORICAL BACKGROUND

- 3.4.1 **Introduction:** this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments around the study area, emphasising the overall development of Carlisle.
- 3.4.2 **Prehistory:** Carlisle is '*seated upon an eminence, surrounded by a fertile plain of rich meadows*' (Whellan 1860, 83). The town lies on the Solway Plain, an area that is characterised by a relatively large number of prehistoric settlement sites, many apparently dating to the Iron Age, which took advantage of the fertile soils (Bewley 1994). There is also some evidence of earlier activity, as Bronze Age collared urns were found at the Garlands Hospital Site in 1861

(Perriam 1992, 3), and more recently a Bronze Age burnt mound has been identified at the same site (LUAU 1996). A metalled trackway was found during The Lanes excavations east of Scotch Street, which is thought to be prehistoric and associated with plough-marks attesting agricultural activity. Isolated finds, including barb-and-tanged arrowheads, also attest to prehistoric activity within the area (McCarthy 2000). The promontory on which Carlisle stands has been used as a defended settlement probably since at least the Iron Age and the *Victoria County History of the County of Cumberland* suggests that the Castle site may have been a pre-Roman *dun* (Doubleday 1901, 285), though there is no excavated evidence for this.

- 3.4.3 **Roman:** Carlisle occupies a naturally well-defined promontory between the Eden and Caldew rivers, and this topography was exploited by the establishment of a Roman fort in the early AD 70s, under the governorship of Petilius Cerialis (Shotton 1993, 13). Excavations on Annetwell Street uncovered a turf and timber rampart (McCarthy 1984), and more recent excavations at the Millennium site, within the fort, have revealed considerable evidence of the fort's internal layout, and the location of the headquarters building (J Zant pers comm).
- 3.4.4 The town of *Luguvalium* grew up to the south of the fort, and the name was first attested on writing tablets dating from the AD 80s (McCarthy *et al* 1990, 4). Excavations have identified extramural settlement from the Flavian period, which was centred on the line of the Roman road that extends south-east from the fort following the line of Castle Street, Blackfriars Street and Botchergate (McCarthy *et al* 1990), and a north/south road that follows in part the line of present day Scotch Street and led towards a bridge over the river Eden (McCarthy 2000). Until recently, it was assumed that all the early identified Roman civilian settlement was situated on the promontory, occupying a similar extent to the later medieval town, with a cemetery extending south along Botchergate. Recent excavations, however, have shown this to be an erroneous assumption as a phase of early Roman timber buildings, predating a cremation cemetery, was uncovered in the area. Subsequently, in the Hadrianic period, a series of timber buildings were constructed along the frontage of Botchergate, with roads or lanes aligned at right-angles to the main road (Zant and Giacco 1999). These buildings show intensive multiple rebuilds and some possible industrial functions, recent excavations to the north of this site have revealed evidence of iron working and lead processing (I Miller *pers comm*).
- 3.4.5 By the late Roman period *Luguvalium* acquired the status of a *Civitas* capital, as *Civitas Carvetiorum*, which demonstrates the importance and significance of this urban centre (Charlesworth 1978, 123). The evidence, however, would suggest that civilian settlement decayed during the fourth century (McCarthy 1982), although McCarthy notes 'Roman' activity at Blackfriars Street (McCarthy *et al* 1990) which seems to extend beyond the traditional end of Roman government into the fifth centuries, and excavations on Scotch Street of a large Roman building also show continuation into the fifth century (Keevill forthcoming).
- 3.4.6 **Early Medieval:** as is the case throughout Cumbria, evidence for early medieval activity is extremely limited. At Blackfriars Street, the later 'Roman'

layers were succeeded by features which have been identified as ‘Anglian’, although close dating is impossible (McCarthy *et al* 1990). Documentary evidence suggests that some elements of urban life were still in existence in the seventh century when, according to Bede (Colgrave 1940), St Cuthbert saw elements of the Roman water systems still in use. In addition, Bede records a nunnery and possibly a monastery within the town (*ibid*), which was perhaps associated with St Cuthbert’s, a church that clearly precedes the development of the cathedral precinct in the twelfth century (McCarthy *et al* 1990). St Cuthbert’s would seem to be aligned on the Roman road system, rather than a more exact east to west orientation, and it is notable that the limited indications of mainly artefactual evidence concentrate on the line of the former north-west to south-east aligned Roman road (McCarthy *et al* 1990). This evidence includes coins which date to between the eighth and eleventh centuries.

- 3.4.7 Nothing certain is known of settlement in Carlisle from the ninth to the eleventh centuries, although metalwork of this period has been found to the west of the present cathedral (Gaimster *et al* 1989). The Danes, however, are recorded as having overrun the region in AD 876 under Halfdan (Earle and Plummer 1892).
- 3.4.8 **Medieval and Post-medieval:** by the eleventh century, Carlisle was in an area of dispute between the expanding kingdoms of England and Scotland. According to the Anglo-Saxon Chronicle, William Rufus in 1092 is said to have ‘set up the walls’, restoring the town and erecting the castle (Earle and Plummer 1892). Rufus garrisoned the town and ‘*sent a number of labourers from the south of England to settle in and around Carlisle, to reclaim the neighbouring lands and to bring them into cultivation*’ (Whellan 1860, 84). In 1122, Henry I ordered the city to be fortified with ‘castles and towers’ (Arnold 1885, 267).
- 3.4.9 In 1135, the town was granted to the Scots as part of a wider political deal between England and Scotland, but Henry II re-established English control by 1157 (McCarthy *et al* 1990). Scottish kings continued to lay claim to many parts of Northern England throughout the rest of the twelfth century and, in 1173, William the Lion attempted to take the town (*op cit*, 126). In 1216 it fell to the Scots, but in the following year was restored to English rule once more. It was not until the mid thirteenth century that the dispute between kingdoms was settled, with the Pope decreeing that Northumberland and Cumberland were part of England (McCarthy *et al* 1990).
- 3.4.10 The visit of Henry I in 1122 prompted not only a major period of building at the castle, but also the foundation in 1133 of an Augustinian Priory, which served as the seat of the newly created bishopric (McCarthy *et al* 1990). The thirteenth century saw the foundation of two further monastic establishments by the Dominicans (Blackfriars) and the Franciscans (Summerson 1993, 103).
- 3.4.11 In the fourteenth century, Carlisle was subject to numerous raids and skirmishes during the Wars of Scottish Independence, and in 1391 was sacked and burnt by the Scots. The impact of the attack was long felt, and a late seventeenth century writer recounted that the city ‘*was never able to recover*

*itselfe from soe many desolations and even at this day the scars of those dreadful wounds are yet apparent for ye town is so thin and empty of inhabitants that it looks like a country village well walld [sic] about rather than a citty [sic]* (Todd 1890, np).

- 3.4.12 Control over the area was attempted through the wardens of three marches defined along each side of the border, and Carlisle was the centre of the Wardenry of the West March (*ibid*). From the late fifteenth century onwards a state of anarchy developed along the border line, which led to the growth of the border reivers (Fraser 1971). Following the unification of the crowns in 1603, the border was forcibly pacified, and Carlisle's influence declined. The Civil War also affected the town, Carlisle being held for a time by the Royalists, but recaptured by Parliament in 1645 (McCarthy *et al* 1990).
- 3.4.13 Following disturbances caused by the Jacobite rebellions of 1715 and 1745, the later eighteenth and first half of the nineteenth centuries saw the development of industry in Carlisle, led by the 'first factory', a woollen mill, in 1724 (Whellan 1860, 97). Particularly important were textiles, mainly woollen manufacture, and a number of biscuit manufacturers also operated in the town (*ibid*). Industrial growth was steady rather than meteoric, as in some other cities – Carlisle has been rightly cited as '*a good instance of what may be called the normal growth of an English town. It owes nothing to mineral wealth and has made no sudden stride, but merely responded to the industrial impulse in proportion to its position as a chief town of a large district and a place which was accessible as a centre of distribution*' (Creighton 1889, 192). The latter role was helped by the arrival of the railway, which was laid in the 1840s (Asquith 1853).

## 4. WATCHING BRIEF RESULTS

### 4.1 INTRODUCTION

4.1.1 In total, 307 trenches (Fig 2) were monitored and these were distributed along 27 roads within the city centre. The majority of the trenches were excavated by mini digger and completed by hand in order to refurbish the water mains. The trenches varied greatly in size and shape and the individual trench dimensions, along with a brief description are provided in *Appendix 2*. The individual trenches have been allocated an alpha-numeric identifier comprising the initials of the street or road in which they were excavated (the pre-fix), and a trench number (Table 1).

<i>Street/Road</i>	<i>Pre-fix</i>	<i>Trench Numbers</i>
Lowther Street	LS	1 - 62
Spring Gardens Lane	SGL	1
Back Chapel Street	BCS	1 - 14
Albert Street	AS	1
Chapel Street	CS	1 - 7
Georgian Way	GW	1 - 3
Victoria Place	VP	1 - 7
Dukes Road	DR	1 - 5
Newmarket Road	NR	1 - 4
Lonsdale Street	LDS	1 - 33
Devonshire Walk	DW	1 - 4
Warwick Road	WR	1 - 20
Earl Street	ES	1 - 4
Crosby Street	CRS	1 - 13
St Paul's Square	SPS	1 - 6
Castle Street	CTS	1 - 16
Paternoster Row	PR	1 - 10



Barton's Place	BP	1 – 4
Abbey Street	ABS	1 – 18
West Walls	WW	1 – 29
Dean Tait's Lane	DTL	1
Fisher Street	FSS	1 - 10
Annetwell Street	AWS	1 - 5
Finkle Street	FKS	1 - 8
St Cuthbert's Lane	SCL	1 - 11
Blackfriar's Street	BFS	1 - 8
Highland Laddie Lane	HLL	1 - 3
Castle Way	CW	
Bridge Street	BRS	

Table 1: Street names showing pre-fixes and trench numbers

## 4.2 OBSERVATIONS

- 4.2.1 All the trenches were excavated through the backfill of a previous cut for the pipe. Generally, all of the trenches displayed an upper surface layer of road or pavement (tarmacadam, sets, brick, paving slabs or concrete), overlying concrete, sand or hardcore. This would in turn overlay the backfill of the previous service trench, occasionally with natural deposits at the base. Plates 1 and 2 show views along Lowther Street and Fisher Street respectively; these being typical scenes of the nature of the works.
- 4.2.2 Whilst all the trenches contained redeposited backfill layers of various compositions, four trenches (LDS14, CTS4, WW1 and FS1) displayed probable natural geology, with reddish-orange and grey-buff gravelly-clay being visible towards the base of LDS14 (Plate 3), and mid-orangy-brown sand with some clay packed with rounded cobbles in CTS4 (Plate 4). Trench WW1 revealed pinkish orange sand natural towards the base and a layer of mid-orange brown clay was exposed within FS1. These natural deposits concur with the boulder clay glacial drift deposits, alluvial silts and clays known within the area.
- 4.2.3 Some of the backfill and levelling layers encountered comprised imported sand and crushed stone, whilst the majority consisted of a dark sandy-clay matrix with various inclusions of stones, gravel, cobbles, sandstone fragments,

rubble and other modern detritus. There were no significant archaeological horizons encountered within any of the trenches.

- 4.2.4 Trench SCL2 exposed a stone drain capstone in the base, which was left undisturbed and *in situ* (Plate 5). Finds were recovered from fourteen of the trenches (Section 4.3), most significantly fragments of human bone and a copper alloy sewing needle from PR1 (Plate 6).

### 4.3 FINDS

- 4.3.1 In total, 20 fragments of artefacts were collected from disturbed deposits during the observations. Of interest amongst the assemblage was a small number of fragments of disarticulated human bone of unknown date, that were collected from trenches along Paternoster Row and West Walls, suggesting the possible proximity of a cemetery. The remainder of the assemblage comprised pottery, a copper alloy needle, clay tobacco pipe and animal bone. The material was largely late post-medieval in date, although a single Roman pottery sherd was collected from Castle Street. Spatial distribution of the artefacts is summarised in Table 2 below. The entire assemblage is summarised in Appendix 3.

Material	St. Cuthberts Lane	Paternoster Row	Castle Street	West Walls	Crosby Street	Fisher Street	Lowther Street	Total
Animal Bone			1	2		1	1	5
Clay Pipe	1							1
Copper		1						1
Human Bone		6		1				7
Pottery	1		2	2	1			6
<b>Total</b>	<b>2</b>	<b>7</b>	<b>3</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>20</b>

Table 2: Spatial distribution of artefacts retrieved from the service trenches.

- 4.3.2 **Pottery:** analysis of the pottery was based solely on visual inspection of individual sherds, which have been described using the terminology developed by Orton *et al* (1993). A single sherd of Roman pottery was yielded from Trench 13 along Castle Street (CTS13). It comprised a hard orange, oxidised groove bowl, decorated in a manner similar to the style commonly used on Severn Valley Ware during the late 2<sup>nd</sup> and 3<sup>rd</sup> centuries. The example from Carlisle however, was possibly produced in a local kiln, such as Scalesceugh kilns south of Carlisle where oxidised wares were known to be produced during the 2<sup>nd</sup> century (McCarthy 1990). The remainder of the pottery

included a trail slipware plate that was probably produced in Staffordshire during the 17<sup>th</sup> or 18<sup>th</sup> century, and the ubiquitous 19<sup>th</sup> and 20<sup>th</sup> century date glazed white earthenwares, which included a blue shell edge plate.

- 4.3.3 **Copper:** a complete sewing dress needle of possible Roman date was recovered from Paternoster Row. The tip was slightly bent and may have been damaged and discarded, or simply lost.
- 4.3.4 **Human Bone;** the bulk of bone was poorly preserved and degraded. It included fragments of vertebrae, patella and rib, all of which were recovered from Paternoster Row.
- 4.3.5 **Animal Bone:** the assemblage comprised several fragments of sheep and horse bone.
- 4.3.6 **Clay Pipe:** a single large-bored plain stem was collected from St Cuthberts Lane. This had a probable 19<sup>th</sup> century date.
- 4.3.7 **Conclusion:** the fieldwork did not reveal any deposits that could be ascribed to the medieval period, and no artefacts of that date are contained within the finds assemblage. Overall the assemblage is too small to have anything but local interest.

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## 5. CONCLUSIONS

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### 5.1 DISCUSSION

- 5.1.1 Although the area monitored had the potential for Roman and medieval archaeological remains to be present, there was a noted absence of any such physical remains. This absence of significant archaeological features or remains is directly the result of the severe truncation caused by the previous pipe-trench excavations, although this does not preclude the possibility of significant archaeological deposits surviving beyond the extents of the work. This supposition is supported by the Roman period finds from Paternoster row and the presence of natural ground underlying some of backfilled deposits. Although the copper alloy needle and human bone from Paternoster Row are of some interest, generally the finds assemblage is only of local interest.
- 5.1.2 The building rubble and associated debris found in a number of the trenches suggests that a period of demolition occurred within the city centre, possibly due to redevelopment.
- 5.1.3 The fact that the majority of the trenches had been excavated entirely within the backfill of previous service trenches resulted in a minimal area of impact and disturbance. However, excavation outside of the existing service trenches may have the potential to provide important information on the city's past.

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## ILLUSTRATIONS

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Figure 1: Location Map

Figure 2: Detailed trench location plan

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Plate 1: Typical view along Lowther Street facing north

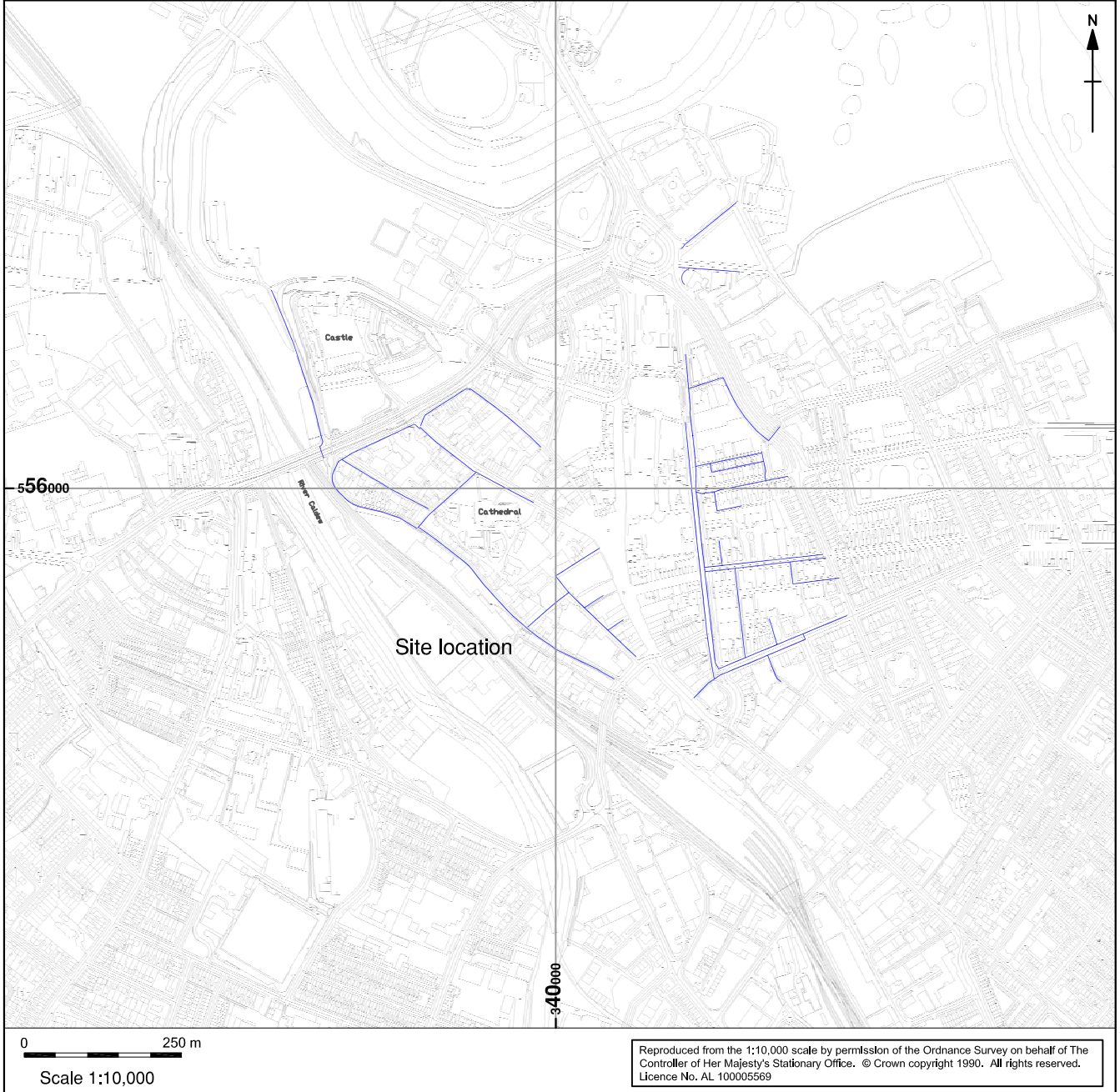
Plate 2: Typical view along Fisher Street facing north-west

Plate 3: North-facing section of Trench LDS 14 showing natural in base.

Plate 4: South-west-facing section of Trench CTS4 showing natural in base

Plate 5: Flagstone-capped drain in Trench SCL2

Plate 6: West-facing section Trench PR1



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Figure 1: Site Location





Figure 2: Trench location plan





Plate 1: Typical view along Lowther Street facing north



Plate 2: Typical view along Fisher Street facing



Plate 3: North-facing section of trench LDS 14 showing natural in base.



Plate 4: South-west-facing section of trench CTS4 showing natural in base





Plate 5: Flagstone-capped drain in trench SCL2



Plate 6: West-facing section trench PR1

## APPENDIX 1: PROJECT DESIGN

---

## 1. INTRODUCTION

- 1.1 Balfour Beatty Utility Services (hereafter the client) are undertaking the rehabilitation of water mains throughout Carlisle City Centre Cumbria (NY 4040 5552). The route runs through an area of high archaeological potential and affects a number of known sites. The Cumbria County Archaeology Service (CCAS) has issued a verbal brief for a programme of archaeological work to be undertaken during the development works. The programme involves a watching brief during the opening of trenches or pits throughout the course of the works.
- 1.2 OA North has considerable experience of the assessment, evaluation and excavation of sites of all periods, having undertaken a great number of small and large-scale projects during the past 20 years. Watching briefs, evaluations and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North has a term commission with United Utilities to undertake all their archaeological work throughout the Northwest. In addition OA North has undertaken a number of infrastructure-type projects for Balfour Beatty Utility Services.
- 1.3 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (IFA) registered organisation, registration number 17, and all its members of staff operate subject to the IFA Code of Conduct.

## 2 OBJECTIVES

- 2.1 The following programme has been designed to provide for accurate recording of any archaeological deposits that are disturbed by the rehabilitation works
- 2.2 **Watching Brief:** a permanent presence watching brief to be undertaken during all new ground disturbance and the excavation of launch/reception pits.
- 2.3 **Report and Archive:** production of a report following the collation of data during section 2.2 above.

## 3 METHOD STATEMENT

### 3.1 WATCHING BRIEF

- 3.1.1 **Methodology:** a programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within any new excavations for the pipetrench and/or launch and reception pits. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.

- 3.1.2 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan provided by the Client. A photographic record will be undertaken simultaneously.
- 3.1.3 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.
- 3.1.4 Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (ie. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 3.1.5 It is assumed that OA North will have the authority to stop the works for a sufficient time period to enable the recording of important deposits. It may also be necessary to call in additional archaeological support if a find of particular importance is identified or a high density of archaeology is discovered, but this would only be called into effect in agreement with the Client and the County Archaeology Service and will require a variation to costing. Also, should evidence of burials be identified, the 1857 Burial Act would apply and a Home Office Licence would be sought. This would involve all work ceasing until the proper authorities were happy for burials to be removed. In normal circumstances, field recording will also include a continual process of analysis, evaluation, and interpretation of the data, in order to establish the necessity for any further more detailed recording that may prove essential.
- 3.1.6 **Health and Safety:** 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 (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 3.1.7 OA North has professional indemnity to a value of £2,000,000, employer's liability cover to a value of £10,000,000 and public liability to a value of £15,000,000. Written details of insurance cover can be provided if required.
- 3.2 ARCHIVE/REPORT
- 3.2.1 **Archive:** the results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English

Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). 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. OA North conforms to best practice in the preparation of project archives for long-term storage. This archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the CSMR (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the appropriate County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum. Wherever possible, OA North recommends the deposition of such material in a local museum approved by the Museums and Galleries Commission, and would make appropriate arrangements with the designated museum at the outset of the project for the proper labelling, packaging, and accessioning of all material recovered.

- 3.2.2 The Arts and Humanities Data Service (AHDS) online database *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.
- 3.2.3 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the client, and a further three copies submitted to the Cumbria SMR within eight weeks of completion of fieldwork. The report will include a copy of this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and will include a full index of archaeological features identified in the course of the project, with an assessment of the overall stratigraphy, together with appropriate illustrations, including detailed plans and sections indicating the locations of archaeological features. Any finds recovered will be assessed with reference to other local material and any particular or unusual features of the assemblage will be highlighted and the potential of the site for palaeoenvironmental analysis will be considered. The report will also include a complete bibliography of sources from which data has been derived.
- 3.2.4 This report will identify areas of defined archaeology. An assessment and statement of the actual and potential archaeological significance of the identified archaeology within the broader context of regional and national archaeological priorities will be made. Illustrative material will include a location map, section drawings, and plans. This report will be in the same basic format as this project design; a digital copy of the report can be provided, if required.
- 3.2.5 Provision will be made for a summary report to be submitted to a suitable regional or national archaeological journal within one year of completion of fieldwork, if relevant results are obtained.



- 3.2.6 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

#### **4 PROJECT MONITORING**

- 4.1 Monitoring of this project will be undertaken through the auspices of the CCAS Archaeologist, who will be informed of the start and end dates of the work.

#### **5 WORK TIMETABLE**

- 5.1 The duration of the watching brief will be dictated by the progress of the contractor.
- 5.2 The client report will be completed within eight weeks following completion of the fieldwork.

#### **6 STAFFING**

- 6.1 The project will be under the direct management of **Alison Plummer BSc (Hons)** (OA North Senior Project Manager) to whom all correspondence should be addressed.
- 6.2 Present timetabling constraints preclude detailing at this stage exactly who will be undertaking the rapid walkover survey and targeted watching brief, but both of these elements of the project are likely to be supervised by an OA North project supervisor experienced in these types of project. All OA North project officers and supervisors are experienced field archaeologists capable of carrying out projects of all sizes.

#### **7 INSURANCE**

- 7.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

## APPENDIX 2: TRENCH DESCRIPTIONS

Generally, the trenches were excavated within the backfill of a previous cut for the pipe, and unless stated otherwise the stratigraphy was contained beneath a tarmacadam road surface (0.12m), which overlay a bed of asphalt (0.17 to 0.25m).

<b>Trench No</b>	<b>Dimensions (m)</b>	<b>Description/Stratigraphy</b>	<b>Comments/Findings</b>
LS1	2.5 x .083 x 0.9	Beneath the road surface 0.3m of a pink crushed stone make-up layer overlay 0.3m of red builder's sand.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS2	2.5 x 0.83 x 1.3	Same as LS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS3	2.9 x 1.2 x 1.2	Beneath the road surface 0.43m redeposited mid-brown clay backfill with some sand and stones overlay 0.4m crushed black asphalt.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS4	2.4 x 0.8 x 1.3	Beneath the road surface 0.3m of clay levelling containing brick fragments, overlay redeposited mid-brown, very sandy-clay.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS5	2.5 x 0.8 x 1.3	Beneath the road surface a redeposited grey-brown sandy-clay with occasional cobble inclusions was observed.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS6	2.2 x 0.8 x 1.35	Same as LS6	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS7	2.5 x 0.8 x 1.25	Beneath the road surface 0.2m of crushed stone and sand levelling overlay 0.2m orangey-brown gravelly-sand levelling, which in turn overlay soft grey-brown sandy-clay with brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS8	3.0 x 3.0 x 1.8	Beneath the road surface 0.5m rubble sandy-clay with brick fragments overlay redeposited grey clay with some sand backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS9	2.1 x 1.0 x 0.8	Beneath the road surface 0.25m concrete overlay mid-brown sandy-clay backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS10	9 x 0.6 x 1.05	Beneath the road surface 0.25m reinforced concrete overlay very mixed, redeposited	The excavated material entirely comprised made-

		brown sandy-clay with some stones and brick fragments.	ground and no archaeological horizons were encountered.
LS11	1.5 x 0.8 x 1.1	Beneath the road surface 0.2m concrete overlay a mixed, very sandy gravelly-clay backfill	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS12	1.5 x 0.8 x 1.1	Same as LS11	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS13	1.5 x 0.8 x 1.1	Same as LS11	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS14	1.5 x 0.8 x 1.1	Same as LS11	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS15	1.5 x 0.8 x 1.1	Same as LS11	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS16	2.0 x 0.6	This was excavated and backfilled in the absence of an archaeological presence.	
LS17	3.0 x 0.8 x 1.5	Beneath the road surface 0.2m reinforced concrete overlay very sandy, rubble-clay backfill with occasional cobbles.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS18	2.5 x 0.8 x 1.4	Beneath the road surface 0.2m reinforced concrete over grey and flecked red, sandy-clay with some brick and rubble fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS19	2.5 x 0.8 x 1.4	Same as LS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS20	1.0 x 1.0 x 1.5	Same as LS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS21	1.0 x 1.0 x 1.5	Beneath the road surface 0.2m concrete overlay mid-brown crushed stone backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS22	1.0 x 1.0 x 1.5	Same as LS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

			horizons were encountered.
LS23	1.0 x 1.0 x 1.5	Same as LS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS24	3.5 x 1.0 x 1.5	Same as LS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS25	2.5 x 1.0 x 1.5	Beneath the road surface 0.25m of reinforced concrete overlay imported orange builders sand. This sealed brown gravelly-sand encountered at the base of the trench.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS26	3.0 x 2.5 x 1.5	Same as LS25	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS27	1.4 x 1.0 x 1.35	Beneath the road surface 0.25m of reinforced concrete overlay mixed, dark brown sandy-clay with rubble, brick fragments and gravel.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS28	1.4 x 1.0 x 1.35	Same as LS27	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS29	1.4 x 1.0 x 1.35	Same as LS27	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS30	2.0 X 1.5 X 1.5	Beneath the road surface 0.25m concrete overlay 0.4m crushed stone levelling layer, which sealed orangey brown builders' sand to 1.5m.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS31	2.0 x 1.5 x 1.5	Same as LS30	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS32	3.0 x 1.0 x 1.1	Beneath the road surface 0.25m of concrete overlay brown-grey sandy-clay with some lenses of imported stone.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS33	1.85 x 1.1 x 1.3	Beneath the road surface 0.25m of light orange-brown sand with some sandstone fragments sealed dark-grey coarse sandy-clay mottled with grey-orange clay till.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS34	4.0 x 1.1 x 1.46	Beneath the road surface 0.25m of light orange-brown sand sealed mixed sandy-clay with	The excavated material entirely comprised made-

		sandstone fragments.	ground and no archaeological horizons were encountered.
LS35	1.1 x 1.1 x 1.0	Beneath the road surface 0.64m of sand was observed to 1.0m in depth	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS36	1.9 x 1.3 x 1.3	Beneath the road surface 0.2m of sand overlay mixed sandy-clay with sandstone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS37	1.8 x 1.8 x 1.4	Same as LS36	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS38	1.35 x 1.35 x 1.3	Beneath the road surface 0.4m light orangey-brown sand was observed to a depth of 1.3m.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS39	1.8 x 1.8 x 1.4	Same as LS39	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS40	3.0 x 2.0 x 1.4	Beneath the road surface a sandy-clay backfill was observed to a depth of 1.4m	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS41	1.1 x 1.1 x 1.4	Same as LS40	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS42	c6.0 x 1.1 x 1.45	Beneath the road surface was a dark-grey medium sandy-clay with stone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS43	2.0 x 1.07 x 0.5	Beneath the road surface was a sandy-clay backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS44	2.4 x 1.5 x 1.85	Same as LS43	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS45	1.5 x 1.0 x 1.7	Beneath the road surface very sandy brown clay was observed.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS46	1.5 x 1.0 x 1.7	Same as LS45	The excavated material

			entirely comprised made-ground and no archaeological horizons were encountered.
LS47	3.0 x 1.2 x 1.7	Same as LS45	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS48	5.0 X 1.5 X 1.6	Beneath the road surface a dull grey sandy-clay with stones was observed.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS49	1.7 x 1.1 x 1.6	Same as LS48	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS50	1.7 x 1.1 x 1.6	Same as LS48	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS51	2.9 x 1.8 x 1.6	Same as LS48 with brick fragments	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS52	3.0 x 1.2 x 1.2	Beneath the road surface 0.2m sand overlay grey-brown sandy-clay backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS53	3.0 x 1.2 x 1.2	Same as LS52	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS54	3.0 x 1.5 x 1.22	Beneath the road surface was an imported brown crushed stone backfill in a sand matrix.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS55	3.0 x 1.6 x 1.5	Beneath the road surface was a mid-dark brown, sandy-clay with occasional brick fragments, rubble and red sandstone fragments.	Two worked sandstone blocks (40cm x 20cm x 15cm) were within the upcast material. They were roughly worked but not <i>in situ</i> as part of a structure. They probably comprised digarded building material from the red sandstone "Citadel" to which LS55 is adjacent. No significant archaeology was observed.
LS56	2.0 x 0.8 x 1.4	Beneath the road surface was an imported sand backfill.	The excavated material entirely comprised made-

			ground and no archaeological horizons were encountered.
LS57	1.2 x 0.8 x 1.4	Beneath the road surface imported light-brown stony sand with some brick fragments was observed.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS58	1.6 x 1.1 x 1.6	Same as LS57	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS59	3.0 x 1.2 x 1.3	Same as LS57	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS60	2.0 x 1.8 x 1.75	The road surface overlay imported sand only.	A brick manhole was observed in the west section but the excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS61	3.0 x 1.0 x 1.6	The road surface overlay 0.8m of imported light brown to buff gravelly-sand, which sealed mid-brown sandy-clay backfill with few inclusions.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LS62	4.0 x 1.2 x 1.4	The road surface overlay 0.4m imported orangey-brown sand, which sealed grey-brown sandy-clay backfill with some brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SGL1	1.2 x 0.8 x 0.8	The road surface overlay 0.3m clay levelling layer with some brick fragments above redeposited mid-brown, very sandy-clay.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
AS1	3.0 x 3.0 x 0.8	The road surface overlay granite sets embedded in sandy-clay backfill with some stones.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. .
BCS1	1.5 x 1.0 x 1.0m	The road surface overlay a reinstated cobble surface above grey-brown sandy-clay with some brick fragments, stones and gravel.	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS2	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS3	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.

BCS4	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS5	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS6	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS7	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS8	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS9	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS10	1.5 x 1.0 x 1.0m	Same as BCS1	The cobble surface observed appeared to have been reinstated and was not closely datable.
BCS11	1.5 x 1.0 x 1.0m	Same as BCS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. .
BCS12	1.5 x 1.0 x 1.0m	Same as BCS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. .
BCS13	1.5 x 1.0 x 1.0m	Same as BCS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. .
BC14	1.5 x 1.0 x 1.0m	Same as BCS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CS1`	1.0 x 1.0 x 1.1	The road surface overlay 0.1m stone sett road surface removed to expose reddish-brown sandy-clay with bricks fragments and an	The excavated material entirely comprised made-ground and no archaeological



		occasional cobble down to 1.1m.	horizons were encountered.
CS2	2.5 x 1.2 x 0.7	Same as CS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CS3	1.0 x 1.0 x 0.95	Same as CS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CS4	1.5 x 1.0 x 1.0	Same as CS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CS5	1.5 x 0.8 x 1.1	Same as CS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CS6	1.5 x 1.5 x 0.8	Same as CS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. .
CS7	2.0 x 0.8 x 0.8	Same as CS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
GW1	2.5 x 1.0 x 1.1	The road surface overlay paving slabs above 0.1m yellow-grey builder's sand, overlying grey-brown sandy-clay with rubble inclusions.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
GW2	1.9 x 1.6 x 1.1	Same as GW1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
GW3	2.2 x 1.2 x 1.3	The road surface overlay paving slabs above 0.1m yellowish-grey builder's sand overlying redeposited brown-grey very sandy-clay.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
VP1	4.0 x 1.0 x 1.2	The road surface overlay stone sets embedded in black asphalt, which sealed dark-brown sandy-clay with some brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
VP2	3.0 x 2.0 x 1.1	The road surface overlay redeposited brown-grey sandy clay.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
VP3	2.0 x 1.0 x 0.98	The road surface overlay redeposited dark-brown sandy-clay with some brick fragments,	The excavated material entirely comprised made-

		stones and rubble.	ground and no archaeological horizons were encountered.
VP4	1.5 x 1.0 x 1.0	Same as VP3	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
VP5	1.5 x 1.5 x 0.8	Same as VP3	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
VP6	1.5 x 1.5 x 0.8	Same as VP3	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
VP7	1.5 x 1.5 x 0.8	Same as VP3	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DR1	2.0 x 0.6 x 0.8	The road surface overlay paving slabs above 0.7m builder's sand and gravel make-up layer with some crushed stone.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DR2	3.5 x 0.7 x 1.3	The road surface overlay imported crushed stone backfill in a loose sandy-clay matrix.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DR3	3.0 x 1.0 x 1.3	Same as DR2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DR4	2.0 x 1.0 x 1.3	The road surface overlay dark-grey brown sandy-clay with brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DR5	2.5 x 1.0 x 1.3	Same as DR4	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
NR1	2.5 x 0.8 x 1.1m	The road surface overlay imported crushed stone and gravelly sand imported backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
NR2	6.0 x 0.8 x 1.0	Same as NR1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
NR3	2.0 x 1.0 x 1.0	Same as NR1	The excavated material

			entirely comprised made-ground and no archaeological horizons were encountered.
NR4	3.0 x 1.0 x 1.0	The road surface overlay dark-grey/black sandy-clay with asphalt inclusions.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS1	1.3 x 1.0 x 1.05	The road surface overlay 0.25m imported pink crushed stone above redeposited mid-dark grey sandy-clay with rubble and brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS2	1.3 x 1.0 x 1.05	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS3	2.0 x 1.0 x 1.0	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS4	c9.0 x 1.0 x 1.1	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS5	c3.0 x 1.0 x 0.5	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. However, the trench had been partially backfilled before proper archaeological inspection could take place.
LDS6	3.0 x 1.0 x 1.1	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS7	1.3 x 1.0 x 1.1	The road surface overlay 0.1m crushed black asphalt above imported pink crushed stone to a depth of 1.1m.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS8	1.3 x 1.0 x 0.8	Same as LDS7	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS9	2.0 x 1.2 x 0.8	Same as LDS7	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS10	1.3 x 1.0 x 0.8	Same as LDS7	The excavated material

			entirely comprised made-ground and no archaeological horizons were encountered.
LDS11	1.3 x 1.0 x 0.8	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS12	2.0 x 1.0 x 0.8	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS13	2.0 x 1.0 x 1.0	Same as LDS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS14	2.0 x 1.5 x 0.75	The road surface overlay 0.3m imported crushed stone in a loose sandy-clay matrix. This sealed reddish-orangey and grey-buff gravelly clay.	The lower layer of clay was probably natural, but no archaeological horizons were observed in section.
LDS15	4.0 x 0.6 x 0.66	The road surface overlay paving blocks above loose, brown gravelly sandy-clay with brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS16	Unknown	This was excavated and backfilled in the absence of an archaeological presence.	
LDS17	Unknown	This was excavated and backfilled in the absence of an archaeological presence.	
LDS18	3.0 x 0.7 x 0.5	The road surface overlay loose, brown gravelly sandy-clay with brick fragments and an occasional cobble.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS19	1.5 x 0.7 x 0.5	Same as LDS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS20	1.5 x 0.7 x 0.5	Same as LDS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS21	2.0 x 1.0 x 0.8	Same as LDS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS22	2.0 x 1.0 x 0.8	Same as LDS18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

LDS23	3.0 X 1.0 X 0.8 (as seen)	The road surface overlay a mix of off-white imported crushed stone and grey-brown very stony, gravelly sandy clay backfill with some brick fragments. This trench was partially backfilled prior to inspection.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS24	1.5 x 1.0 x 0.7	Same as LDS23	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS25	1.5 x 1.2 x 0.5	Same as LDS23	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS26	2.0 x 1.2 x 0.6	The road surface overlay imported crushed stone backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS27	2.0 x 1.0 x 0.7	Same as LDS23	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS28	1.2 x 1.2 x 0.6	Same as LDS23	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS29	3.0 x 3.0 x 0.6	Same as LDS23	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS30	2.0 x 1.0 x 0.6	Same as LDS23	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS31	3.5 x 2.0	This trench was excavated and backfilled in the absence of an archaeological presence.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS32	2.0 x 1.0 x 0.6	The road surface overlay imported crushed stone backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
LDS33	2.0 x 2.0 x 0.8	The road surface overlay imported gravelly, sandy crushed stone infill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DW1	2.2 x 0.8 x 0.8	The road surface overlay very dark grey/black very wet, soft, slightly oil-contaminated sandy-	The excavated material entirely comprised made-ground and no archaeological

		clay with inclusions of whole modern bricks.	horizons were encountered.
DW2	2.5 x 1.2 x 1.1	The road surface overlay reddish gravelly sand with stone fragments to a depth of 1.1m.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DW3	2.0 x 0.6 x 1.1	The road surface overlay stone sets above loose, very rubbly sandy-clay with stones and brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
DW4	c5.0 x 1.5 x 1.7	The stratigraphy comprised 0.1m paving slabs above 0.2m stony sand levelling layer overlying loose, dark grey sandy-clay backfill with brick fragments, increasingly sandy with depth.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ES1	1.2 x 0.8 x 0.8m	The stratigraphy comprised 0.13m black stone sets laid directly into mid-brown, loose sandy-clay with stones and some gravel.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ES2	2.0 x 0.8 x 0.8	Same as ES1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ES3	1.1 x 0.8 x 1.0	The stratigraphy comprised 0.1m paving slabs above 0.2m concrete overlying mid-brown very sandy-clay with some stones and gravel.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ES4	2.0 x 0.8 x 0.7	Same as ES3	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR1	4.0 x 1.0 x 1.5	The road surface overlay very sandy mid-brown mixed stony-silt with c 40% small rounded cobbles and stones and some brick fragments. Grey, redeposited sandy-clay was observed in the base of the trench only.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR2	3.5 x 1.5 x 1.4	Same as WR1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR3	2.5 x 1.1 x 1.0	The road surface overlay imported red-brown imported sand backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR4	3.3 x 1.2 x 1.5	The road surface sealed mid to dark-grey sandy clay with brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

WR5	1.0 x 1.0 x 1.2	The road surface overlay grey, gravelly-stony backfill with some sand.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR6	1.5 x 1.2 x 1.0	Same as WR5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR7	1.5 x 1.2 x 1.0	Same as WR5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR8	1.5 x 1.2 x 1.0	Same as WR5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR9	1.0 x 1.0 x 1.0	Same as WR5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR10	3.2 x 1.2 x 1.2	The road surface overlay imported grey stony sand over loose mixed sandy-clay backfill to 1.2m.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR11	4.0 x 1.4 x 1.0	Same as WR10	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR12	3.0 X 2.0 X 2.0	The road surface overlay 0.6m light grey-brown gravelly-stony-sand above 0.6m sandy-clay flecked orange with occasional brick fragments. This sealed imported crushed concrete and stone backfill to a depth of 2.0m.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR13	4.0 x 1.1 x 1.55	The road surface overlay light-brown/grey gravelly, very stony sand with some rounded cobbles and an occasional whole modern brick.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR14	1.6 x 1.0 x 1.25	The road surface overlay 0.4m grey-brown gravelly-stony sand backfill over brown sandy clay backfill with rubble inclusions.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR15	1.6 x 1.0 x 1.25	Same as WR14	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR16	1.6 x 1.0 x 1.25	Same as WR14	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

			horizons were encountered.
WR17	2.5 x 1.2 x 1.45	Same as WR14	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR18	2.0 x 1.5 x 1.38	The road surface overlay 0.2m pink crushed stone hardcore above dark grey-brown sandy-clay backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR19	2.0 x 1.5 x 1.4	Same as WR18	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WR20	4.0 x 1.5 x 1.4	The road surface overlay very stony sand with some cobbles and occasional ceramic drainpipe fragment.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SPS1	2.0 x 1.2	This was excavated and backfilled in the absence of an archaeological presence.	Unseen
SPS2	2.0 x 1.0	This was excavated and backfilled in the absence of an archaeological presence.	Unseen
SPS3	2.2 x 1.5	This was excavated and backfilled in the absence of an archaeological presence.	Unseen
SPS4	2.5 x 1.0	This was excavated and backfilled in the absence of an archaeological presence.	Unseen
SPS5	1.2 x 1.0	This was excavated and backfilled in the absence of an archaeological presence.	Unseen
SPS6	3.0 x 1.2 x 0.8	The road surface overlay stone sets over loose, grey sandy-gravelly-clay backfill. This trench was partially backfilled prior to inspection.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS1	1.0 X 1.0 X 0.8	The road surface overlay brick sets embedded in loose, mixed-brown gravelly-stony-sandy-clay backfill with some brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS2	1.0 x 1.2 x 0.8	Same as CRS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS3	4.0 x 2.0 x 0.85	The road surface overlay brick sets embedded in loose, mixed-brown gravelly-stony-sandy-clay backfill with some brick fragments and salt-glazed drain fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS4	2.0 x 1.5 x 0.6	Same as CRS3	The excavated material entirely comprised made-



			ground and no archaeological horizons were encountered.
CRS5	5.5 x 2.1 x 0.7	The road surface overlay brick sets embedded in loose, mixed-brown gravelly-stony-sandy-clay backfill with some brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS6	3.5 x 2.0 x 0.8	Same as CRS5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One shard of brown-glazed pot was recovered from the backfill.
CRS7	2.1 x 1.5 x 1.1	Same as CRS5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS8	2.0 x 1.2 x 1.0	Same as CRS5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS9	1.0 x 1.0 x 0.6	The road surface overlay brown-grey sandy-clay backfill only.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS10	0.6 x 0.6 x 0.6	Same as CRS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS11	2.5 x 1.2 x 0.75	Same as CRS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS12	2.0 x 1.2 x 1.0	Same as CRS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CRS13	2.0 x 1.2 x 1.25	Same as CRS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CR1	2.4 x 1.6 x 1.2	The road surface overlay stone setts above 0.15m crushed stone and sand, overlying 0.4m dark grey-brown sandy-clay, above imported red sand backfill.	A brick manhole was observed in the east-facing section, but no significant archaeological horizons were encountered.
CR2	2.4 x 1.4 x 1.48	The road surface overlay stone setts above 0.3m concrete overlying dark grey-brown sandy-clay	A brick manhole was observed in the east-facing

		backfill with a large lens of slumped white crushed stone.	section, but no significant archaeological horizons were encountered.
CTS1	3.0 X 1.5 X 1.0	The road surface overlay dark grey sandy-clay backfill with some brick fragments	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One shard of white and blue-glazed pot was recovered from the backfill.
CTS2	4.0 x 1.5 x 1.0	The road surface overlay dark brown-grey sandy-clay backfill with some imported stone.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS3	2.0 x 2.0 x 0.9	The road surface overlay a mix of imported sand and crushed stone in a matrix of dark brown sandy-clay with some rubble and sandstone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS4	4.2 x 1.5 x 0.95	The road surface overlay 0.6m dark of grey sandy-clay with some rubble. This sealed mid-orangey-brown sand with some clay packed with rounded cobbles.	The lower layer of sand and cobbles was probably natural, but no archaeological horizons were observed in section.
CTS5	1.3 x 1.2 x 1.1	The road surface overlay mid-grey-brown sandy-clay backfill with much imported orangey sand.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS6	1.9 x 1.2 x 1.3	The road surface overlay imported crushed stone backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS7	1.9 x 1.3 x 1.15	The road surface overlay dark brown sandy-clay backfill with some brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS8	2.0 x 2.0 x 1.2	The road surface overlay dark brown sandy-clay backfill with some brick fragments and imported crushed stone.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS9	4.0 x 1.3 x 1.3	The road surface overlay dark grey sandy-clay with some rubble, stones and occasional brick fragment.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS10	1.1 x 1.1 x 1.1	Same as CTS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS11	2.0 x 1.5 x 1.1	Same as CTS9	The excavated material entirely comprised made-

			ground and no archaeological horizons were encountered.
CTS12	1.5 x 1.0 x 1.1	Same as CTS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS13	1.5 x 1.5 x 1.1	Same as CTS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One shard of pot was recovered from the backfill.
CTS14	1.1 x 1.0 x 1.1	Same as CTS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS15	3.0 x 1.0 x 1.2	Same as CTS9	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CTS16	2.0 x 1.0 x 1.25	The road surface overlay imported grey crushed stone.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
PR1	1.4 x 1.0 x 1.2	The road surface overlay black stone sets laid in sand over dark brown very stony sandy-clay backfill with many red sandstone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. Human bone fragments and a copper alloy needle were recovered from the backfill.
PR2	1.0 x 0.8 x 1.0	The stratigraphy comprised 0.2m stone sets laid in sand above 0.8m soft, loose, dark brown sandy-clay with c20% rounded to sub-rounded stones and inclusions of brick, sandstone and salt-glazed pipe fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. Two pieces of bone were recovered from the backfill.
PR3	1.0 x 0.8 x 1.0	Same as PR2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
PR4	1.8 x 1.0 x 0.85	The stratigraphy comprised 0.2m stone sets laid in sand over soft, loose, dark grey-brown sandy-clay with sandstone fragments and c5% stones.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
PR5	4.0 x 0.8 x 1.0	The stratigraphy comprised 0.2m stone sets laid in sand over soft, loose dark grey-brown sandy-clay with sandstone fragments and c5% stones, some imported crushed stone.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

PR6	1.4 x 0.8 x 1.0	The road surface overlay imported crushed stone backfill in a loose mid-grey-brown sandy-clay matrix with occasional sandstone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
PR7	1.0 x 1.0 x 0.5	This trench was only partially excavated upon inspection. The observed stratigraphy comprised 0.2m stone sets laid in sand above stony sand backfill only.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
PR8	1.2 x 0.8 x 1.0	The stratigraphy comprised 0.2m stone sets laid in sand above dark brown sandy-clay with stones and cobbles and occasional sandstone fragment.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
PR9	1.2 x 0.8 x 0.8	The stratigraphy comprised 0.2m stone sets above 0.2m concrete over a levelling layer comprising 80% flattened, rounded cobbles and gravel in a loose sand matrix.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
PR10	4.0 x 1.2 x 1.2	The stratigraphy comprised 0.2m stone sets laid in sand above a mixture of stone, sand and sandy-clay backfills.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BP1	3.2 x 0.8 x 0.9	The stratigraphy comprised 0.2m stone sets laid in 0.1m sand above stony sand and gravel backfill with inclusions of rubble, brick fragments and whole modern bricks.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BP2	2.0 x 1.0 x 0.8	The stratigraphy comprised 0.2m stone sets laid in 0.1m sand above stony sand and gravel backfill with inclusions of rubble, brick fragments, flattish sub-rounded cobbles and some whole modern bricks.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BP3	2.0 x 0.5 x 0.7	The stratigraphy comprised 0.2m stone sets laid in 0.1m sand above stony sand and gravel backfill with some rubble and brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BP4	2.0 x 0.8 x 0.6	Excavated through the backfill of a previous cut for the pipe, this trench had been partially backfilled prior to inspection. The observed stratigraphy comprised 0.2m stone sets laid in 0.1m sand above stony sand and gravel backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS1	1.3 x 1.2 x 0.7	The stratigraphy comprised 0.15m stone sets laid in sand above mid grey-brown sandy-clay backfill with brick fragments and some gravel.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS2	1.2 x 0.8 x 0.8	Same as ABS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One piece of bone was recovered from the spoil.

ABS3	1.7 x 1.0 x 1.0m	The stratigraphy comprised 0.15m stone sets laid in sand above mid grey-brown sandy-clay backfill with brick fragments, some gravel and occasional cobble.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS4	3.5 x 1.0 x 1.2	The stratigraphy comprised 0.15m stone sets laid in sand above mid grey-brown sandy-clay backfill with brick fragments and some gravel.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS5	1.1 x 0.7 x 1.1	Same as ABS4	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS6	1.1 x 0.8 x 1.1	Same as ABS4	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS7	3.5 x 1.0 x 1.3	Same as BS4	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS8	1.2 x 1.0 x 0.8	Same as ABS4	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS9	1.2 x 1.2 x 1.0	The stratigraphy comprised 0.15m stone sets above imported crushed stone and red sand in a gravelly sandy-clay backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS10	1.2 x 1.0 x 0.95	Same as ABS4	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS11	3.0 x 1.2 x 1.1	Same as ABS4. Sandy-clay was observed towards the base.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS12	1.5 x 1.0 x 1.2	The stratigraphy comprised 0.15m stone sets above loose mid grey-brown gravelly, stony sand with some clay and some large (0.3m x 0.3m x 0.15m) unworked sandstone lumps.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS13	1.5 x 1.0 x 1.2	Same as ABS12	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS14	1.5 x 1.0 x 1.2	Same as ABS12	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

			horizons were encountered.
ABS15	5.0 x 1.1 x 1.1	The stratigraphy comprised 0.15m stone sets above a mixture of gravelly sandy-clay and imported crushed stone.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS16	1.3 x 1.0 x 1.2	The stratigraphy comprised gravelly sandy-clay backfill with occasional brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS17	1.3 x 1.0 x 1.2	Same as ABS16	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
ABS18	5.0 x 1.0 x 1.2	The road surface overlay mixed sand and gravelly-clay backfill only.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW1	3.0 X 1.2 X 1.35	The road surface overlay 0.7m dark grey-brown very stony sandy-clay with occasional sandstone fragments above pinkish orange sand natural	The excavated material mostly comprised made-ground although the sand at the base was possibly natural ground. However, no archaeological horizons were encountered.
WW2	1.0 x 1.0 x 1.05	The road surface overlay stone sets above imported crushed stone in a sandy-clay matrix.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW3	1.0 x 1.2 x 1.05	Same as WW2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW4	1.0 x 1.0 x 1.0	Same as WW2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW5	1.05 x 1.05 x 1.15	The road surface overlay stone sets over dark grey-brown stony-sand with some clay and occasional sandstone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW6	1.0 x 1.05 x 1.15	The road surface overlay stone sets above imported crushed stone in a sandy-clay matrix.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW7	1.3 x 1.2 x 1.15	The road surface overlay 0.2m stone sets above imported crushed stone in a sandy-clay matrix with some brick fragments and slat-glazed pipe fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

WW8	2.7 x 1.2 x 1.15	The road surface overlay stone sets above imported crushed stone in a sandy-clay matrix.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW9	1.5 x 1.2 x 1.25	Same as WW8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One piece of white-glazed pot was recovered from the spoil.
WW10	1.2 x 1.0 x 1.15	Same as WW8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW11	1.1 x 1.0 x 1.1	Same as WW8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW12	1.0 x 1.0 x 0.8	Same as WW8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW13	1.0 x 1.0 x 1.1	The road surface overlay stone sets above imported crushed stone in a grey-brown sandy-clay matrix.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW14	1.0 x 1.0 x 0.68	Same as WW8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW15	4.0 x 1.5 x 1.2	The road surface overlay stone sets above imported crushed stone in a sandy-clay matrix with some sandstone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW16	1.4 x 0.8 x 1.3	Same as WW15	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One piece of bone was recovered from the spoil.
WW17	1.6 x 1.15 x 1.25	Same as WW7	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW18	1.05 x 0.9 x 1.17	Same as WW15	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.

WW19	1.3 x 0.9 x 1.3	Same as WW8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW20	2.5 x 1.1 x 1.4	Same as WW15	The excavated material entirely comprised made-ground and no archaeological horizons were encountered, although a brick manhole was deconstructed during the excavation of this trench.
WW21	1.3 x 0.9 x 1.3	The road surface overlay dark brown stony sandy-clay backfill with sandstone fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW22	1.2 x 1.0 x 1.4	Same as WW21	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One piece of bone was recovered from the spoil.
WW23	2.0 x 1.0 x 1.2	Same as WW21	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW24	2.5 x 1.0 x 1.3	Same as WW21	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW25	1.2 x 1.2 x 1.35	Same as WW21	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW26	1.2 x 1.2 x 1.3	Same as WW21	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW27	3.0 x 1.2 x 1.3	Same as WW21	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW28	1.3 x 1.0 x 1.25	The road surface overlay a loose dark brown stony sandy-clay backfill with sandstone fragments and some stones.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
WW29	2.5 x 1.1 x 0.8	The road surface overlay mid to light brown very sandy, gravelly-clay backfill with c30% stones.	The excavated material entirely comprised made-ground and no archaeological



			horizons were encountered.
FS1	2.7 X 1.0 X 1.2	The road surface overlay mid to dark brown very sandy-clay with some stones and occasional cobble. In the base of the trench was observed mid-orangey brown clay which may have been natural.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS2	1.3 X 1.0 X 1.15	The road surface overlay mid to dark brown very sandy-clay with some stones and occasional cobble.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS3	2.2 X 1.0 X 0.88	Same as FS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS4	2.5 X 1.5 X 1.13	The road surface overlay mid to dark brown very sandy-clay with some stones, sandstone and brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS5	1.7 X 1.0 X 1.2	Same as FS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS6	1.3 X 1.0 X 1.05	Same as FS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS7	1.3 X 1.0 X 1.05	Same as FS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One blackened mammalian tooth was recovered from the backfill.
FS8	1.4 X 1.1 X 1.1	Same as FS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS9	1.2 X 1.0 X 1.0	Same as FS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FS10	2.0 X 1.0 X 1.3	Same as FS2	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
AW1	2.7 X 1.4 X 1.12	The road surface overlay paving slabs above mid grey-brown sandy-clay backfill with some stones and occasional cobble towards the base.	The excavated material entirely comprised made-ground and no archaeological

			horizons were encountered.
AW2	1.35 x 1.0 x 0.8	The road surface overlay paving slabs over mid grey-brown sandy-clay backfill with some stones and lenses of imported sand.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
AW3	3.2 x 0.8 x 1.0	The road surface overlay paving slabs over 0.2m imported pinkish crushed stone levelling layer above mid grey-brown sandy-clay with few inclusions.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
AW4	1.2 x 1.2 x 0.8	Same as AW3	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
AW5	5.0 x 2.0 x 1.05	The road surface overlay a mix of crushed stone, rubble and other mixed backfills.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS1	1.3 x 1.2 x 0.9	The stratigraphy comprised 0.05m paving slabs above very mixed dark brown sandy-clay with some stones and occasional cobble.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS2	1.9 x 1.3 x 1.15	Same as FKS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS3	1.5 x 0.6 x 0.8	Same as FKS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS4	1.8 x 1.1 x 0.9	The stratigraphy comprised 0.05m paving slabs above very mixed dark brown sandy-clay with some stones and a large lens of imported crushed stone in section.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS5	1.2 x 1.1 x 0.65	Same as FKS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS6	1.2 x 1.1 x 0.65	Same as FKS1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS7	1.0 x 1.0 x 0.8	The stratigraphy comprised 0.05m paving slabs above very mixed dark-brown sandy-clay with some stones and c30% imported pink fine sand.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
FKS8	2.2 x 1.2 x 0.9	The stratigraphy comprised 0.05m paving slabs over a mix of crushed stone, rubble and	The excavated material entirely comprised made-

		other mixed backfills. Stony gravel was evident in the base of the trench.	ground and no archaeological horizons were encountered.
SCL1	2.0 X 1.0 X 1.0	The stratigraphy comprised red brick sets above 0.25m imported red sand overlying imported crushed stone in a grey-brown sand matrix with some sandy-clay mixed in.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered. One fragment of kaolin pipe-stem was recovered from the spoil.
SCL2	1.3 x 1.3 x 1.2	The stratigraphy comprised 0.2m paving slabs in sand sealing dark grey-brown sandy-clay backfill with brick fragments. A sandstone capstone/slab was observed in the base of the trench.	The sandstone capstone was not closely datable but is likely to be post-medieval in date.
SCL3	1.2 x 1.2 x 1.15	The stratigraphy comprised 0.3m paving slabs in sand above mid brown-grey gravelly, stony sandy-clay backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL4	1.2 x 1.2 x 1.15	Same as SCL3	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL5	2.5 x 0.8 x 1.15	The stratigraphy comprised 0.3m paving slabs in sand above mid brown-grey gravelly, stony sandy-clay backfill with some brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL6	1.1 x 0.8 x 1.2	The stratigraphy comprised 0.3m paving slabs in sand over mid brown-grey gravelly, stony sandy-clay backfill with much imported sand.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL7	1.2 x 0.9 x 1.2	Same as SCL6	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL8	1.2 x 0.8 x 1.2	The stratigraphy comprised 0.3m paving slabs in sand over mid brown-grey gravelly, stony sandy-clay backfill.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL9	3.2 x 1.5 x 0.9	Same as SCL8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL10	2.0 x 1.5 x 1.1	Same as SCL8	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
SCL11	3.0 x 1.8 x 0.8	The stratigraphy comprised herringbone pattern setts in orange sand sealing dark brown-grey	The excavated material entirely comprised made-

		gravelly, stony sandy-clay backfill.	ground and no archaeological horizons were encountered.
BFS1	2.2 x 1.6 x 1.15	Same as SCL11	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BFS2	1.5 x 1.5 x 0.8	The road surface overlay very mixed dark brown sandy-clay with much imported crushed stone and gravel.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BFS3	2.3 x 1.1 x 1.03	The road surface overlay 0.35m light brown-buff sandy-gravel with much flattened medium river-worn stones over dark brown sandy-clay with sandstone fragments and 5% stones.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BFS4	1.3 x 1.5 x 1.0	The road surface overlay dark brown sandy-clay with gravel and 10% rounded stones.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BFS5	1.3 x 1.1 x 1.0	Same as BFS4	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BFS6	1.9 x 1.05 x 1.05	Same as BFS5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BFS7	1.6 x 1.1 x 0.9	Same as BFS5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
BFS8	5.0 x 1.0 x 0.9	Same as BFS5	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
HLL1	1.5 x 1.5 x 0.4	The road surface overlay paving slabs above a very sandy-clay backfill with some stones and brick fragments.	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
HLL2	1.5 x 1.5 x 0.4	Same as HLL1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
HLL3	1.5 x 1.5 x 0.4	Same as HLL1	The excavated material entirely comprised made-ground and no archaeological horizons were encountered.
CW		Excavations in Castle Way were effected and	

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		backfilled in the absence of an archaeological presence.	
BRS		Excavations in Bridge Street were effected and backfilled in the absence of an archaeological presence.	

## APPENDIX 3: FINDS SUMMARY

Trench	Material	Quantity	Description	Date
SCL1	Clay Pipe	1	Large bored stem	19 <sup>th</sup> century
PR1	Copper Alloy	1	Sewing needle	Roman?
CTS1	Pottery	1	Glazed white earthenware; shell edge plate	19 <sup>th</sup> century
WW9	Pottery	1	Glazed white earthenware	19 <sup>th</sup> /20 <sup>th</sup> century
SCC8	Pottery	1	Glazed white earthenware	19 <sup>th</sup> /20 <sup>th</sup> century
WW28	Pottery	1	Glazed white earthenware	19 <sup>th</sup> /20 <sup>th</sup> century
CRS8	Pottery	1	Staffordshire produced trail slipware plate	17 <sup>th</sup> /18 <sup>th</sup> century
CTS13	Pottery	1	Severn Valley Ware type bowl, possibly local product	2 <sup>nd</sup> /3 <sup>rd</sup> century
FSS7	Animal Bone	1	Sheep tooth	Not closely datable
PR2	Human Bone	2	Rib, shoulder blade fragments	Not closely datable
WW16	Animal Bone	1	Sheep	Not closely datable
WW22	Human Bone	1	Patella	Not closely datable
PR1	Human Bone	5	Vertebra and unidentified fragments	Not closely datable
LS52	Animal Bone	1	Sheep	Not closely datable
CTS12	Animal Bone	1	Horse	Not closely datable