Surface Water Sewer Replacement The Square, Winchester, Hampshire

Archaeological Watching Brief Report



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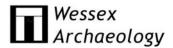
Summary

Wessex Archaeology was appointed by the Highways Engineering Consultancy of Hampshire County Council (HCC) to undertake a watching brief during the replacement of surface water sewer facilities along The Square, Winchester, centred on National Grid Reference (NGR) 448152 129397.

The works lie within an area of central Winchester which is known from previous work to have a considerable potential for the survival of archaeological features and deposits dating from the Roman, Saxon and medieval periods. The fieldwork was undertaken between 6th July and 31st October 2011.

The excavation of the pipe trench revealed a high level of post-medieval and modern disturbance. However, in-situ archaeological deposits were recorded during the course of the work. These included two sections of Roman wall, one possibly associated with a building fronting onto a pre-cursor to Great Minster Street, slightly to the east of the modern alignment, and the other within the area designated as belonging to the forum of the Roman town, which was close to a large dump deposit of Roman brick.

At the eastern end of the pipe trench within Market Lane, post-medieval deposits were found to contain large quantities of redeposited and disarticulated human bone. These deposits appear associated with the disturbance of the original medieval cathedral cemetery which previously occupied this area.



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The project was managed on behalf of Wessex Archaeology by Andy Manning. The fieldwork was carried out by Naomi Brennan, Olly Good, Piotr Orczewski and Julia Sulikowska. The report was researched and compiled by Sian Reynolds and Andy Manning, with the illustrations prepared by Ken Lymer. The finds were assessed by Lorraine Mepham and Lorrain Higbee, and the human bone was assessed by Kirsten Dinwiddy.



Archaeological Watching Brief Report

1 INTRODUCTION

1.1 **Project Background**

- Wessex Archaeology was appointed by the Highways Engineering 1.1.1 Consultancy of Hampshire County Council (HCC) to carry out a watching brief during the replacement of a surface water sewer and associated repaving works along The Square, Winchester, hereafter 'the Site', centred on NGR 448152 129397 (Figure 1).
- 1.1.2 The works lie within an area of central Winchester which is known to contain a considerable potential for the survival of significant archaeological features and deposits (see Section 2.1 below). Following the advice provided to HCC Engineering Consultancy by the Winchester City Council's Historic Environment Officer (HEO) for Archaeology, a constant archaeological watching brief was undertaken to ensure that any archaeological remains or deposits disturbed during the course of the works would be recorded to an appropriate level.
- 1.1.3 A Written Scheme of Investigation (Wessex Archaeology 2011a) covering the scope and methodology of the watching brief was submitted to, and approved by, Winchester City Council before the commencement of the fieldwork.
- The fieldwork was undertaken between 6th July and 31st October 2011. 1.1.4

1.2 Site location, topography and geology

- 1.2.1 The works comprised machine excavation of a new sewer trench within the line of previous services and additional provision for new manholes, lateral connections and repaying. The works were located along the full length of The Square, the southern end of Market Street and the western end of Market Lane, a total length of approximately 360m (Figure 1).
- 1.2.2 The scheme lies immediately to the existing north boundary of the Cathedral churchyard at a height of 39.10m above Ordnance Datum (aOD) at the western junction with Great Minster Street and 37.34m aOD at the eastern end of the scheme in Market Street/market Lane.
- 1.2.3 Natural deposits recorded in the vicinity comprise Clay-with-Flint, up to 2m thick, overlying degraded Chalk (GSGB 1949).

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND 2

2.1 Archaeological and historical background

The Site lies within the historic core of Winchester which is an area of known 2.1.1 archaeological significance, dating from the Iron Age with 83 separate entries on the Winchester Historic Environment Record (WHER) within 150m of the centre point of the works (Figure 1). These entries highlight the



considerable archaeological and historical evidence for the town's development from observations and excavations on the High Street and in its vicinity (e.g. Biddle 1975; Scobie et al 1991; Wacher 1995; Winchester Museums Service 1997; Wessex Archaeology 2006 and 2011b and c).

- The works run approximately parallel to, and 40m to the south of, the High 2.1.2 Street, which generally follows the line of the principal street linking the east and west gates of the Roman town Venta Belgarum, 'the market town of the Belgae'. The Roman town was established c. 70 AD, on the eastern boundary of Iron Age Hillfort Oram's Arbour (Figure 1, 25) (Wacher 1995, 291-301). A large proportion of the Roman entries on the Winchester Historic Environment Record (WHER) relate to road-side buildings along the northern edge of the High Street, when service installations in 1881, 1963 and 1975 revealed undisturbed archaeological deposits at between 1.0m and 1.60 m below the ground surface. The remains represented Roman buildings fronting the Roman 'High Street' and three north-south Roman streets.
- 2.1.3 However, evidence was also found for a substantial stone-built possible colonnaded building (at least approximately 130m by 130m in size) with a tessellated floor. This structure appears to have constructed after AD90, continuing into the 4th century (Figure 1, 60-1 and 65). The large scale of the structure suggests that it was a public building, probably the forum. The observed remains appear to form part of the eastern range of the building with an outer portico and shops or offices behind, the latter arranged around the central court.
- In the Saxon and medieval town, the High Street linked the town's east and 2.1.4 west gates. Metalled surfaces noted less than 1.0m below the existing thoroughfare may have been of Saxon and/or medieval date. To the east, along The Broadway, Saxon pottery was found in a deposit 1.80 m below the surface. The Square thoroughfare represents an encroachment during the later medieval period onto land which was previously part of the Cathedral cemetery.
- 2.1.5 Well-preserved late medieval and post-medieval stratified deposits and pits were recorded at the western end of High Street during the installation of a new gas main in 2005-8 (Wessex Archaeology 2011b).

3 AIMS AND OBJECTIVES

- 3.1.1 With due regard to the IfA Standards and Guidance for Archaeological Watching Brief (IfA 2008), the generic aims of the project were to;
 - Monitor the programme of works to locate, identify and to investigate and record the presence/absence of archaeological features or deposits, including palaeoenvironmental deposits
 - If significant archaeological features or deposits are located, then the watching brief would establish, where possible, the extent, date, character, relationship, condition and significance of these features and deposits within the area impacted, and



To inform the scope and nature of any requirements for potential future mitigation, if appropriate.

METHODOLOGY 4

- All works were undertaken in accordance with the methodology set out 4.1.1 within the WSI. All fieldwork was conducted in accordance with the guidance and standards outlined in the IfA Standards and Guidance for Archaeological Watching Brief (as amended 2008).
- 4.1.2 The pipe trench was located by the staff of Mildren Construction, using Hampshire County Council plans. Works progressed broadly east to west along Market Lane, Market Street and the Square (Zones 1 to 4, Figure 2) stopping at the north of Great Minster Street.
- 4.1.3 Under the constant supervision by an experienced archaeologist, the trench was excavated using a five tonne 360° tracked excavator with a toothless ditching bucket. Deposits were removed in a series of spits to allow the identification of archaeological deposits in situ. The spoil removed from the trench was also scanned for artefacts. Monitoring was maintained until the potential for any/further archaeological remains was exhausted, modern services encountered, or the trench maximum depth (1.50 m) was achieved.
- All potential archaeological features and deposits were subsequently hand 4.1.4 cleaned and sample excavated as per the methodology set out in the WSI (Wessex Archaeology 2011a). Features and deposits were recorded using Wessex Archaeology's pro forma record sheets and a unique numbering system for individual contexts, and were planned at a scale of 1:20. Sections were drawn at 1:10. All principal strata and features were related to the Ordnance Survey datum. Following all investigation and recording, the areas were then backfilled.
- A photographic record of the watching brief was maintained through digital 4.1.5 images. The photographic record illustrated both the detail and general context of the archaeological remains revealed, and the Site as a whole.

5 FIELDWORK RESULTS

5.1 Introduction

5.1.1 Large sections of the trench were within the line of previous services and accordingly contained considerable amounts of modern disturbance. However, in the very limited areas where the modern disturbance was less extensive, archaeological deposits were easily observed and could be recorded, although access to the base of the trench was limited due to health and safety considerations.

5.2 The main deposit sequence

5.2.1 The current surface of Market Lane, Market Street and The Square is a mix of paving slabs and tarmac. Below this was a sequence of modern consolidation and bedding layers comprised of sand, tarmac and concrete up to 0.3-0.8m in depth. Numerous services and utility trenches were recorded along the route, with an assortment of backfills including redeposited up-cast from their installation. The up-cast sometimes included



material containing previously disturbed archaeological material. Throughout the trench the ground was heavily disturbed and building rubble and mortar were commonly seen.

5.3 The archaeological sequence

Romano-British

- Three main areas of Romano-British features were observed (Features A-5.3.1 C), Figure 2). The first of these was located along the eastern section at the junction of Market Lane and Market Street (Feature A, Zone 2, Figure 2). A small section of a Roman tile and mortar wall/foundation (112) was recorded at a depth of 1.50m from the top of the modern ground surface, approximately 0.8m wide and aligned north-east/south-west. This wall is consistent in construction and alignment with other structural elements uncovered during excavations c.50m to the east and which was interpreted as part of the forum complex of Venta Belgarum (Figure 1, 60-1 and 65). The dimensions suggest that this was an internal wall, but its distance from other known walls in the area mean that it is not possible to incorporate it within a building floor plan.
- Approximately 20m to the south-west and within the Market Street section of 5.3.2 the pipe trench, a large dump deposit of Roman brick and crushed mortar (125, 126 and 127) was recorded at a depth of 1.0m from the top of the modern ground surface (Feature B, Zone 2, Figure 2) This deposit was not in situ and appeared to form a destruction deposit possibly related to ground clearance in advance of later construction. The brick layer was situated above a charcoal rich deposit which could be interpreted as the top of the undisturbed Roman or post-Roman layers, 1.50m below the modern ground surface.
- 5.3.3 Within the main section of the trench along The Square (Zone 3, Figure 2), the extrapolated street grid of Roman Winchester proposes two northeast/south-west aligned roads as crossing this section (Figure 2, HER entry - MWC6670/1). Observations throughout this section of the pipe trench recorded post medieval dark grey silty clay deposits to the maximum excavated depth of 1.5m (Figure 2 and Figure 3, Plates 3 and 4). No evidence of metalling or features associated with roman urban roads was observed within the limits of the excavation.
- The third observation was made in the western section of the pipe trench, 5.3.4 running along The Square towards Great Minster Street. A substantial wall/foundation (151) was recorded aligned with the trench and associated with a possible dark earth deposit (152) (Feature C, Zone 4, Figure 2). The wall was constructed of roughly shaped flint nodules in a yellow mortar matrix and measured c.2.5m in length and survived to a height of c.0.4m (between 1.10-1.50m below the modern ground level) continuing into the unexcavated deposits below the bottom of the pipe trench. No finds were recovered from the deposits surrounding the wall, but its construction and alignment indicate that it is likely to be broadly contemporary with other structural elements previously excavated in the area of Market Street, as shown on **Figure 1** (12 and 14).



Medieval human remains

5.3.5 Although of post-medieval date, deposits (104 and 143) along Market Lane at the eastern end of the trench were characterised by large quantities of disarticulated human bone within a dark grey silty clay material (Zone 1, Figure 2). Previous evidence of cemetery deposits have been noted within or adjacent to Cathedral land (Figure 1, 43 and 55) and this section of the pipe trench appears to have run through land previously located within the boundaries of the medieval cathedral cemetery and it is likely that these layers are the result of earlier disturbance of the below ground deposits. No articulated skeletons were observed and it was not clear how far the bones had moved from their original interment location. No evidence for human remains was found elsewhere.

Post-medieval features

- 5.3.6 At the eastern end of the pipe trench in Market Lane (Zone 1, Figure 2) was a well preserved section of post-medieval kerb stones (108-110) on the same alignment as the modern road (Figure 3, Plate 1). Post-dating the kerb was a well preserved brick built drain (107) (Figure 3, Plate 2).
- 5.3.7 Below the modern consolidation layers were recorded a number of dark grey silty clay deposits, dated by artefactual components to the post-medieval period (Figure 2 and Figure 3, Plates 3 and 4). Across the majority of the trenches these deposits extended below the 1.5m excavation depth. The top of the natural geology was not seen during the duration of the watching brief.

6 **ARTEFACTS**

6.1 Introduction

- A small quantity of finds was recovered, largely comprising animal bone. 6.1.1 Datable material includes items of Romano-British and post-medieval date.
- 6.1.2 All finds have been quantified by material type within each context, and the results are presented in Table 1.

Table 1: All finds by context (number / weight in grammes)

	Animal		Human			Other
Context	Bone	CBM	Bone	Pottery	Metalwork	Finds
104		4/226		2/47	1 Cu	1 clay pipe
129		4/5911				
130	3/77					1 shell
140	21/1484					
143	1/196		1/205			
145	150/10786	1/5			1 Fe	1 shell
152	7/340			1/22		
Unstrat.	2/128			1/39		
TOTALS	184/13011	9/6142	1/205	4/108	1 Cu; 1 Fe	

6.2 **Pottery**

6.2.1 Only four sherds of pottery were recovered. Three are Romano-British: one greyware body sherd from context 104; the base from a New Forest colour



coated vessel from context 152; and an Oxfordshire white-slipped mortarium rim found unstratified (Young 1977, type WC7; AD240-400+).

6.2.2 The remaining sherd, from context **104**, is from a modern stoneware inkwell.

6.3 **Ceramic Building Material (CBM)**

- 6.3.1 Five of the nine pieces of CBM recovered are from identifiable Romano-British types; four of these are fragments of bricks (of unspecified type) from context 129, one of them combed, while the fifth is a piece of box flue tile from context 104.
- 6.3.2 Two further fragments from 104 are medieval/post-medieval (one brick and one tile), while the other two fragments are undiagnostic (contexts 104 and 145).

6.4 **Animal Bone**

Quantity and provenance

A total of 184 fragments (or 13.01kg) of animal bone were recovered from 6.4.1 four contexts (130, 140, 145 and 152). Once conjoins are taken into account this figure falls to 120 fragments (Table 2). One sherd of Romano-British pottery was recovered from context 152 but no dateable finds were recovered from the other contexts containing bone. However, similarities between the undated material (e.g. preservation condition and skeletal element representation) and the small number of bones from context 152, suggest that these deposits might be contemporary.

Methods

6.4.2 The following information was recorded where applicable: species, skeletal element, preservation condition, fusion data, tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information.

Results

- 6.4.3 Bone preservation is extremely good and only the material from context 152 shows slight evidence of surface weathering. Evidence for gnawing is also quite minimal and marks were only apparent on three bones from context 145.
- 6.4.4 Most (77%) of the animal bone assemblage is from context 145, the other three contexts produced between two to five fragments each. The material from context 145 is dominated by cattle foot bones (or metapodials). In total there are 34 metacarpals (front leg) and 41 metatarsals (back leg) from a minimum of at least 12 individuals. All but two of the bones have fused distal epiphyses, indicating that the bones are from animals over the age of 2-21/2 years. Most of the metapodials had been chopped through the mid-shaft and the proximal ends are slightly better represented in the assemblage than the distal ends, and only three bones are complete. Many of the distal ends have abnormally splayed condyles. This pathological condition is generally associated with cattle used for traction.



The assemblage from context 145 also includes a few cattle bones from 6.4.5 other areas of the body, typically the more meat-rich parts of the upper foreand hind-quarters, as well as a few sheep/goat and pig bones.

Conclusions

6.4.6 The quantity of detailed information available for further study (Table 3) is of limited analytical value particularly given the uncertain date. Deposits containing cattle metapodials that have been chopped mid-shaft have previously been recorded from Romano-British deposits at Victoria Road (Maltby 2010, 138) and Saxo-Norman deposits at Henly's Garage (Sergeantson and Smith 2009, 155-6) in Winchester. These deposits have been interpreted as waste material from grease production and primary butchery waste (i.e. as a means of separating the upper and lower leg). Both of these interpretations are equally valid for the concentration of cattle bones from context 145.

Table 2: Number of identified animal bone specimens present (or NISP)

Species	Romano- British	US/UD	Total
cattle	3	97	100
sheep/goat		9	9
pig		2	2
Total identified	3	108	111
Total unidentifiable	2	7	9
Overall total	5	115	120

Table 3: Quantity and type of detailed information available for further study of animal bone

	No.
Age - fusion	43
Age - mandibles (2+ teeth)	1
Biometric	40
Butchery	76
Total	160

6.5 Other Finds

6.5.1 Other finds comprise one iron nail (undated), one modern copper alloy teaspoon; one clay tobacco pipe stem fragment; and two pieces of oyster shell.

7 **HUMAN BONE**

7.1 Introduction

7.1.1 Human bone was recovered from two contexts; eleven 20ltr bags of disarticulated material from context 104, and one bone from context 143. The material all derived from re-worked, medieval cemetery soil associated with Winchester Cathedral, i.e. the main cemetery for Winchester. The cemetery boundary is known to have been encroached upon in the vicinity of



'The Square' by the early 14th century (Keene and Rumble 1985, fig. 62, 549).

7.2 Methods

7.2.1 In accordance with standard procedures (McKinley 2004), and as advised in the WSI (Wessex Archaeology 2011a), the assemblage was subject to a rapid scan, and calculation of the minimum number of individuals (MNI). Where possible, an assessment of age and sex was also made using standard methods (Buikstra and Ubelaker 1994; Scheuer and Black 2000). Pathological lesions and observations on skeletal morphology were also noted.

7.3 Results

- 7.3.1 Disarticulated bones were encountered at approximately 0.80m below the modern pavement, continuing in abundance for a further 30m.
- 7.3.2 The bone assemblage is in excellent to good condition (grade 0-2; McKinley 2004, fig. 6). The material comprises predominantly complete or near complete elements, though this may be a relic of rapid recovery in unfavourable conditions. Breaks are both old and new. It doesn't appear that the bones had been moved very far, or very often, nor had they been sorted in any way.

Demography

- 7.3.3 A minimum of 33 individuals are represented within the assemblage. The most frequently recovered bones are the distal right humerus and the proximal end of both femora (23 from each side). Most other bones are also well represented, with the majority of age ranges and duplications thereof represented within the lower limb assemblage.
- 7.3.4 A minimum of 21 adults (63.6%) and 12 immature individuals (<18 yr.; 36.4%) are represented. The latter comprises one foetus (c. 18-22 weeks), one neonate (0-6 months), five infants (two c. 1 year, three c. 2-4 years), four juveniles (two c. 5-10 years, two c. 10-13 years), and one subadult (c. 13-18 years, probable male). The adult assemblage comprises both males (minimum nine; 42.9%) and females (minimum ten; 47.6%). It was possible to identify a broad age range for some individuals, with four falling into the young adult age range (18-30 years; one male, three females), ten middle adults (30-45 years; four males, three females, three unsexed), and two older adults (over c. 45 years; two females). The proportion of immature to adult individuals is commensurate with the rates from the contemporaneous assemblage from Fishergate, York (36.6%; Stroud and Kemp 1993, 170).
- 7.3.5 In general the sexual dimorphism of the adults is not pronounced, though there are examples of large and robust, and small, gracile individuals. Distinctly marked muscle attachment sites were common in the upper limbs of both sexes.

Morphological variations

7.3.6 Variations in skeletal morphology can be linked to various factors including hereditability, diet and activity, or a combination of these. However, in small samples and disarticulated material, these can be misleading.



Noted morphological variations observed include wormian bones, a metopic 7.3.7 suture, a precondylar tubercle, palatine tori (three), a bifid upper rib, accessory sacral facets, septal apertures, frequent Allen's fossae and a coalition anomaly probably related to a calcaneus secondaris.

Pathology

7.3.8 Several pathological changes were observed, with most skeletal areas affected.

Dental

7.3.9 Moderate deposits of dental calculus (calcified tartar or plaque; Hillson 1979, 300-3) are present on most teeth. The often associated condition periodontal disease (ibid) however, is slight and infrequent, as are dental caries and abscesses. Ante mortem tooth loss was noted in several molar positions, probably a result of other dental conditions rather than excessive wear. Unusual wear was noted in one elderly female, whose hyper-erupted mandibular molar is worn and polished from crown to root-tip, probably due to the loss of adjacent (and possibly other) teeth.

Stress indicators

Several conditions or changes thought to be indicative of dietary or 7.3.10 nutritional stress are represented. Dental enamel hypoplasia - tooth enamel defects reflective of periods of illness or nutritional stress during childhood (Hillson 1979; 127-39) is common in the assemblage, present as one or two deep, or multiple shallow defects, most apparently forming around the traditional weaning age (c. 2-4 years). Cribra orbitalia (pitting in the orbital roof believed to reflect childhood iron deficiency anaemia; Roberts and Manchester 1995, 166-9) was seen in the orbits of eleven individuals (seven females; three males and an infant). Other possible stress indicators include exocranial porotic hypersotosis, proliferatic endocranial vessel impressions, and thickened diploë. Bowed tibiae and radii (minimum one adult) implies childhood vitamin D deficiency (Rickets).

Trauma

- Traumatic injuries include healed fractures in a pair of nasal bones, a left 7.3.11 distal ulna, and a scaphoid. Nasal fractures result from a direct blow; causes vary. The ulna fracture may have been the result of a direct blow to the forearm, or as with the scaphoid fracture, a fall onto the hand. All affected males and were substantially remodelled. Complications comprise mild localised infection or delayed healing of the ulna, and necrosis/resorbtion and syntosis of the scaphoid with the distal radius. Roberts and Cox (2003, 237) note that lower arm fractures were common in the period.
- 7.3.12 Healed lesions consistent with osteochondritis dissecans (localised necrosis of the articular surface following traumatic disruption to the blood supply; Roberts and Manchester 1997, 87-9) were observed in two left distal femora.

Infection and inflammation

7.3.13 Bone will either resorb or proliferate in response to inflammatory stimuli e.g. infection or direct irritation. Often the aetiology cannot be confidently determined in osteological material, particularly when it is disarticulated.



- Periosteal new bone was identified on the shaft a neonatal ulna (slight), a disto-medial tibia shaft (slight) and a distal right male ulna (extensive and chronic/recurrent). Lamellar new bone on the visceral surface of a mid-range adult rib indicates chronic irritation of the pleura, either due to disease (e.g. pleurisy, tuberculosis) or sensitivity to irritants in the air such as dust or smoke. Non-specific sinusitis (slight, lamellar) was noted in at least one individual.
- 7.3.15 Both destruction and proliferation was noted on a fragment of mid-range rib shaft indicating active infection, perhaps a result of an injury.

Joint degeneration

- Observed vertebral pathology is infrequent and includes a few thoracic 7.3.16 Schmorl's nodes (traumatic intervertebral disc prolapse in young adulthood), degenerative disc disease, and osteophytosis in several cervical and thoracic vertebrae. Two cervical vertebrae were ankylosed, probably due to degeneration or injury.
- Lesions indicative of osteoarthritis (Rodgers and Waldron 1995, 43-44) were 7.3.17 also infrequent but often advanced. Lesions were found in two cervical vertebrae and the articular process joints of several thoracic vertebrae. Affected post-cranial joints comprise a temporo-mandibular joint, several ribs, three shoulders, an elbow, two wrists, a knee and toes. Preosteoarthritic conditions (lone pitting and osteophytes) were occasionally seen in most joints (the shoulders, elbows, wrists, thumbs, hips, knees, ankles and toes). Two humeri have lesions indicative of a damaged or deteriorated rotator cuff.
- Most cases appear to be due to excessive wear-and-tear associated with 7.3.18 activity and/or increasing age. One or two examples are most likely related to traumatic injury (see above).

Miscellaneous

Hyperostosis frontalis interna, a fused hyoid, and ossified thyroid cartilage all 7.3.19 signify the presence of older adults (>45 yr.) within the assemblage.

7.4 Conclusions

7.4.1 The demographic proportions suggest that the assemblage represents a sample of the overall local population rather than specific groups. There was some childhood stress, possibly due to a combination of dietary deficiencies and childhood diseases, though some of those affected survived into adulthood. It appears that both trauma and chronic infection were relatively uncommon. The pattern of muscle markings and to some degree joint degeneration implies a relatively low participation in heavy labour, and more frequent repeated participation in physical activity involving the upper limbs.

ENVIRONMENTAL 8

8.1.1 No features or deposits were seen as suitable or accessible for environmental sampling and subsequently no environmental samples were taken.



9 **CONCLUSIONS**

- 9.1.1 The evidence revealed during this project on The Square, Winchester, serves to enhance the record of the Roman archaeology already identified in previous excavations undertaken in the vicinity of the Site (Figure 1).
- 9.1.2 The most significant discoveries made during the watching brief comprise the observation of a number of limited Romano-British structural elements. These correlate through construction techniques, depth of discovery, and alignment with those found during earlier fieldwork in the area of The Square (12, 14, 40 and 42) and Market Lane (60-1, 65, 69, 71, 79 and 82). In the eastern portion of the Site, along Market Lane, these were located within the insula that has previously been identified as containing the remains of the forum of Venta Belgarum (60-1 and 65) and this watching brief has not found any evidence to question this interpretation. Towards the western end of the pipe trench, the large section of flint wall/foundations can be assumed to belong to a building fronting onto one of the north-east/south-west roads of the extrapolated Roman street grid which the later medieval roads largely follow. Neither of the two Romano-British streets that had been proposed to run through the Site were noted during groundworks, although they may be preserved at a greater depth than the 1.50m excavation depth.
- Post-medieval deposits found at the eastern end of the pipe trench were 9.1.3 characterised by significant amounts of redeposited and disarticulated human bone. This area of the Site previously lay within the boundaries of the medieval cathedral cemetery (43 and 55) and this material is clearly associated with the post-medieval disturbance of the burial ground when the Market Lane and The Square thoroughfare encroached onto the previously sanctified land.

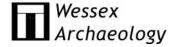
10 **ARCHIVE**

10.1 **Preparation and Deposition**

- The archive is currently held at Wessex Archaeology's office building under 10.1.1 the site code 77750. The complete archaeological project archive will be prepared in accordance with Wessex Archaeology's Guidelines for Archive Preparation and in accordance with Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (2007).
- 10.1.2 At a later date, the archive will be deposited with the Winchester City Council Museum Service under the site code AY460. The archive will be prepared in accordance with the Museum's archive preparation standards.

10.2 The Archive

10.2.1 The project archive was prepared in accordance with the guidelines outlined in Management of Research Projects in the Historic Environment (MoRPHE), and in accordance with the Guidelines for the preparation of excavation archives for long term storage (UKIC 1990). It comprises a ringbound file containing a watching brief attendance form, site 'day book', trench record sheets, photographic register and Written Scheme of Investigation.



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	APPENDIX 1: CONTEXT SUMMARY TABLE					
Context	Description					
101	Layer	Modern tarmac				
102	Layer	Modern made ground/hard core layer				
103	Layer	Modern made ground				
104	Layer	Post-medieval made ground, contained human material				
105	Layer	Post-medieval made ground.				
106	Cut	Cut for modern brick culvert				
107	Feature	modern brick culvert				
108	Cut	cut for kerb				
109	Wall	Sandstone kerb				
110	Layer	Footing deposit for kerb wall				
111	Cut	Cut for Roman Wall				
112	Wall	Roman Wall				
113	Layer	Post-medieval made ground with high charcoal content				
114	Layer	Redeposited deposit of mortar				
115	Layer	Uninvestigated cess deposit at a depth of 1.8m				
116		VOID				
117	Layer	Redeposited rubble made ground deposit				
118	Layer	Modern sand bedding deposit				
119	Layer	Modern tarmac				
120	Layer	Modern gravel bedding layer				
121	Layer	Sand layer				
122	Layer	Modern paving stone				
123	Layer	Concrete layer				
124		VOID				
125	Layer	Roman brick mixed rubble				
126	Layer	Roman rubble layer above 125				
127	Layer	Roman rubble layer above 126				
128		VOID				
129	Wall	Modern brick wall				
130	Layer	Dark earth deposit				
131	Layer	Dark earth deposit				
132	Layer	Redeposited mortar/made ground deposit				
133	Layer	Redeposited rubble deposit				
134	Layer	Uninvestigated undated cess deposit at a depth of 1.3m				
135	Layer	Flint and chalk levelling deposit				
136	Layer	Uninvestigated undated cess deposit at a depth of 1.2m				
137	Layer	Made ground deposit with heavy burning				



139 Layer Modern hardcore 140 Layer Gravel stone levelling deposit 141 Layer Yellow grey silt mixed layer, modern. 142 Layer Yellowish sand/gravel levelling deposit 143 Layer Post-medieval made ground, contained human material 144 VOID 145 Layer Gravel/stone levelling deposit 146 Layer Gravel/stone levelling deposit 147 Layer Gravel/stone levelling deposit 148 Layer Gravel stone levelling deposit 149 Layer Rubble levelling deposit 150 Layer Post-medieval made ground. 151 Wall Roman flint and mortar wall 152 Layer Possible dark earth associated with wall 151 153 Layer Modern paving slabs. 154 Layer Modern haver of redeposited chalk 155 Layer Modern layer of redeposited chalk 157 Layer Post-medieval made ground. 158 Cut Cut for modern sandstone wall 160 Cut Cut for modern sandstone wall 161 Wall Modern brick wall 162 Cut Cut for modern flint wall 163 Wall Modern lint wall 164 Cut Modern lint wall 165 Layer Post-medieval made ground. 166 Layer Post-medieval made ground. 167 Cut Cut for modern flint wall 168 Fill Fill of modern service 169 Layer Post-medieval made ground. 170 Cut Cut for modern service 171 Fill Fill of modern service 172 Layer Post-medieval made ground 173 Layer Post-medieval/modern made ground 174 Layer Post-medieval/modern made ground 175 Layer Post-medieval/modern made ground 176 Cut Post-medieval/modern made ground 177 Layer Post-medieval/modern made ground 178 Layer Post-medieval/modern made ground	138	Layer	Thin deposit of modern slag	
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176	Layer	Post-medieval/modern made ground
177	Layer	Post-medieval/modern made ground



APPENDIX 2: SELECTED DATA SUMMARISED FROM THE WINCHESTER HISTORIC ENVIRONMENT RECORD

WA No.	AHBR No.	Site Type	Description	Period	Easting	Northing
1	MWC6823	CHURCH	Church of St. Thomas	Medieval	447976	129366
2	MWC6626	CHURCH	St. Peter in Macellis church	Early Medieval	447987	129556
3	MWC6509	BUILDING	BUILDING at HIGH STREET/ST. THOMAS STREET	Roman	447996	129476
4	MWC6883	BUILDING	UNDERCROFT at ST. THOMAS STREET	Medieval	448000	129423
5	MWC6936	BUILDING	BUILDING at ST. THOMAS STREET	Roman	448001	129393
			Roman building and associated deposits at 8A ST Thomas Street,			
6	MWC7630	BUILDING	Winchester	Roman	448013	129377
7	MWC6512	BUILDING	BUILDING at HIGH STREET	Roman	448017	129531
8	MWC6844	PUBLIC HOUSE	The Dolphin Public House	Medieval	448029	129490
9	MWC6917	ROAD	Little Minster Street	Medieval	448037	129314
10	MWC6648	BUILDING	BUILDING at HIGH STREET	Roman	448039	129481
11	MWC6647	BUILDING	BUILDING at ST. THOMAS STREET	Roman	448045	129319
12	MWC6531	BUILDING	BUILDING at HIGH STREET	Roman	448050	129504
		BUILDING,				
13	MWC6516	WALL, ROAD	Roman building at Little Minster Street	Roman	448050	129440
14	MWC6510	BUILDING	BUILDING at ST. THOMAS STREET	Roman	448058	129425
		CELLAR, BEER				
15	MWC6984	HOUSE	Medieval cellar at The Old Vine	Medieval	448063	129399
		HOUSE, PUBLIC		Elizabethan to		
16	MWC7510	HOUSE	The Old Vine	Victorian	448064	129401
17	MWC6518	BUILDING	BUILDING at ST. GEORGES STREET	Roman	448064	129540
		PRECINCT				
18	MWC6716	WALL	The Close Wall (monastic precinct wall)	Medieval	448065	129189
19	MWC6851	BUILDING	TENEMENT at ST. GEORGES STREET	Medieval	448066	129542
20	MWC6532	BUILDING	BUILDING at HIGH STREET	Roman	448068	129497
21	MWC6668	ROAD	ROAD at HIGH STREET/LITTLE MINSTER STREET		448073	129476
22	MWC6517	BUILDING	BUILDING at ST. GEORGES STREET	Roman	448073	129539
23	MWC6524	BUILDING	BUILDING at HIGH STREET	Roman	448077	129504
24	MWC6533	BUILDING	BUILDING at HIGH STREET	Roman	448102	129481



MWC6615

MWC6545

BUILDING

50

51

New Minster

BUILDING at HIGH STREET

WA AHBR No. **Period** Site Type Description **Easting Northing** No. **BOUNDARY** 25 MWC6595 DITCH Middle Iron Age 448106 129653 Orams Arbour ditch, North to East gates 26 MWC6715 CHURCH Church of St. Mary 129287 Medieval 448113 27 MWC6925 129653 ROAD St. Peters Street Medieval 448114 Medieval to **PARISH** Late 20th 28 CHURCH MWC6738 Church of St. Lawrence Century 448114 129461 29 MWC6759 ROAD ROAD at HIGH STREET Early Medieval 448118 129421 30 MWC6534 BUILDING **BUILDING at HIGH STREET** Roman 448127 129473 129511 31 MWC6841 BUILDING TENEMENT at HIGH STREET Medieval 448131 32 MWC6909 ROYAL PALACE Norman Royal Palace Medieval 448133 129436 ROAD at HIGH STREET/NORTH WALLS/ST. SWITHUNS STREET 33 MWC6670 **ROAD** 448138 129473 Roman MWC6837 34 BUILDING The Pentice Post Medieval 448139 129447 35 MWC6649 **BUILDING** BUILDING at HIGH STREET ZONE Roman 448141 129470 MWC6756 **ROAD** St. Georges Street 129516 36 Early Medieval 448143 129466 37 MWC6649 BUILDING **BUILDING at HIGH STREET ZONE** 448144 Roman Roman east - west street at Castle Hill, Cathedral Green and Colebrook 38 MWC6675 **ROAD** 129322 Street Roman 448145 39 MWC6642 BUILDING **WORKSHOP at HIGH STREET** Early Medieval 448155 129410 MWC6537 BUILDING 129413 40 **BUILDING at HIGH STREET** Roman 448155 MWC6528 BUILDING BUILDING at HIGH STREET 129461 41 Roman 448156 MWC6536 BUILDING 129417 42 **BUILDING at HIGH STREET** Roman 448158 MWC6833 CEMETERY 129358 43 Cathedral Cemetery Medieval 448159 44 MWC6813 CHURCH Church of St. Mary Kalender Medieval 448161 129474 45 MWC6530 BUILDING BUILDING at HIGH STREET 448176 129454 Roman Early Medieval MWC6614 MINSTER to Medieval 129306 46 Old Minster 448177 MWC6842 **TENEMENT at HIGH STREET** 47 BUILDING Medieval 448186 129479 MWC6546 BUILDING **BUILDING at CATHEDRAL GREEN** 129292 48 Roman 448188 49 MWC6544 BUILDING **BUILDING at HIGH STREET** Roman 448189 129479 MINSTER 129324

448189

448189

Early Medieval

Roman

129479



WA AHBR No. **Period** Site Type Description **Easting Northing** No. CEMETERY 448191 129386 52 MWC6616 **New Minster Cemetery** Early Medieval 53 MWC6671 ROAD ROAD at HIGH STREET 448192 129476 Roman 54 MWC6852 TENEMENT at THE SQUARE BUILDING Medieval 448197 129426 55 MWC6529 **BUILDING at HIGH STREET** BUILDING Roman 448197 129451 MWC6543 BUILDING TOWN HOUSE at HIGH STREET 129483 56 448197 Roman 57 MWC6843 BUILDING TENEMENT at HIGH STREET Medieval 448199 129475 MWC6523 BUILDING TOWN HOUSE at UPPER BROOK STREET 129400 58 Roman 448200 59 MWC6542 BUILDING **BUILDING at HIGH STREET** Roman 448200 129484 FORUM at CATHEDRAL GREEN/THE SQUARE 60 MWC6578 **FORUM** 448205 129379 Roman 61 MWC6527 BUILDING **BUILDING at HIGH STREET** 448213 129445 Roman BUILDING TOWN HOUSE at UPPER BROOK STREET 129482 62 MWC6523 Roman 448216 63 MWC6548 BUILDING **BUILDING at HIGH STREET** 448222 129458 Roman 64 MWC6549 BUILDING **BUILDING at HIGH STREET** 448227 129441 Roman FORUM at CATHEDRAL GREEN/THE SQUARE 129355 65 MWC6578 **FORUM** 448230 Roman 66 MWC6861 **BUILDING** TENEMENT at MIDDLE BROOK STREET 448240 129496 Medieval 67 MWC6550 BUILDING **BUILDING at HIGH STREET** Roman 448241 129430 MWC6862 BUILDING 68 TENEMENT at MIDDLE BROOK STREET Medieval 448252 129492 69 MWC6724 BUILDING **BUILDING at CATHEDRAL GREEN** Medieval 448264 129359 70 MWC6928 **ROAD** Medieval 129625 **Upper Brook Street** 448266 71 MWC6551 **BUILDING** TOWN HOUSE at CATHEDRAL GREEN 129356 Roman 448268 72 MWC6863 BUILDING TENEMENT at MIDDLE BROOK STREET Medieval 448270 129508 73 MWC6864 BUILDING TENEMENT at MIDDLE BROOK STREET Medieval 448270 129484 74 MWC6617 MINSTER New Minster Building E Early Medieval 448271 129310 75 CHURCH MWC6814 Church of St. Mary Ode Medieval 448273 129431 76 CHURCH MWC6817 Church of St. Maurice Medieval 448274 129402 ROAD at CATHEDRAL GREEN/HIGH STREET/MIDDLE BROOK 77 MWC6672 ROAD STREET 448275 129400 78 MWC6618 CHAPEL CHAPEL at CATHEDRAL GREEN Early Medieval 448276 129352 79 **BUILDING at HIGH STREET** MWC6553 BUILDING Roman 448282 129385 TOWN HOUSE at HIGH STREET/MIDDLE BROOK STREET/ST. MWC6555 BUILDING **GEORGES STREET** 129460 80 Roman 448284 81 MWC6865 **BUILDING** TENEMENT at MIDDLE BROOK STREET Medieval 448290 129472



WA AHBR No. Description Period Site Type **Easting** Northing No. BUILDING TOWN HOUSE at CATHEDRAL GREEN MWC6651 129350 82 Roman 448294 83 MWC6918 Middle Brook Street 448354 129598 ROAD Medieval



APPENDIX 3: OASIS FORM

OASIS ID: wessexar1-119511

Project details

Sewer Water replacement, The Square, Winchester Project name

Short description of the project

Wessex Archaeology was appointed by the Highways Engineering Consultancy (Hampshire County Council (HCC)) to undertake a watching brief during works to replace surface water sewer facilities along The Square, Winchester, centred on National Grid Reference (NGR) 448152 129397. The ground-works associated with the installation of the new sewer facility were expected to expose and impact upon any buried archaeological remains. This provided an opportunity for an assessment to be made of the level of archaeological preservation within the historic urban core of Winchester. The fieldwork was undertaken between 6th July and 31st October 2011. The excavation of the pipe trench revealed a high level of disturbance and truncation through post-medieval and modern activity, with limited archaeological deposits of Roman date below. The natural geology was not exposed during this course of works due to a maximum formation depth of 1.5m below modern ground level. Two sections of Roman wall were discovered, one possibly associated with a building fronting onto a pre-cursor to Great Minster Street, slightly to the east of the modern alignment, and the other within the area designated as belonging to the forum of Venta Belgarum. At the eastern end of the pipe trench, that stretch running along Market Lane, post medieval layers containing redeposited and disarticulated human bone were recorded. These deposits can be associated with the disturbance of the cathedral cemetery which previously occupied this area.

Project dates Start: 06-07-2011 End: 31-10-2011

Previous/future

work

No / No

associated 77750 - Contracting Unit No. Any

project reference

codes

Any associated AY460 - Museum accession ID

project reference

codes

Recording project Type of project

Area of Archaeological Importance (AAI) Site status

Current Land use Wetlands

Monument type WALL Roman

Significant Finds **HUMAN BONE Medieval**

Investigation type 'Watching Brief'

Prompt Direction from Local Planning Authority - PPS

Project location

Country **England**



Site location HAMPSHIRE WINCHESTER WINCHESTER The Square

Postcode **SO23 9WE** Study area 1.00 Hectares

Site coordinates SU 4810 2930 51.0604867299 -1.3135558511 51 03 37 N 001 18

48 W Point

Height OD / Depth Min: 35.00m Max: 37.00m

Project creators

Name of Wessex Archaeology

Organisation

Project brief Local Planning Authority (with/without advice from County/District

originator Archaeologist)

Project design Wessex Archaeology

originator

Project A Manning

director/manager

Project supervisor Naomi Brennan Project supervisor Oliver Good

Project supervisor Piotr Orczewski Project supervisor J. Sulikowska

Type of County Council

sponsor/funding

body

of Highways Engineering Consultancy of Hampshire County Council Name

sponsor/funding

body

Project archives

Physical Archive Winchester Museum Service

recipient

Physical Archive AY460

Physical Contents 'Animal Bones', 'Ceramics', 'Human Bones', 'Metal', 'other'

Digital Archive Winchester City Museum

recipient

Digital Archive ID AY460 **Digital Contents** 'none'

Digital Media 'Images raster / digital photography', 'Text'

available

Paper Archive Winchester City Museum

recipient

Paper Archive ID AY460 'none' Paper Contents Paper Media 'Context

sheet', 'Diary', 'Drawing', 'Map', 'Photograph', 'Plan', 'Report', 'Section' available



Project bibliography 1

Grey literature (unpublished document/manuscript)

Publication type

Title Surface Water Sewer Replacement, The Square, Winchester, Hants

Author(s)/Editor(s) Reynolds, S

Other 77750

bibliographic details

Date 2012

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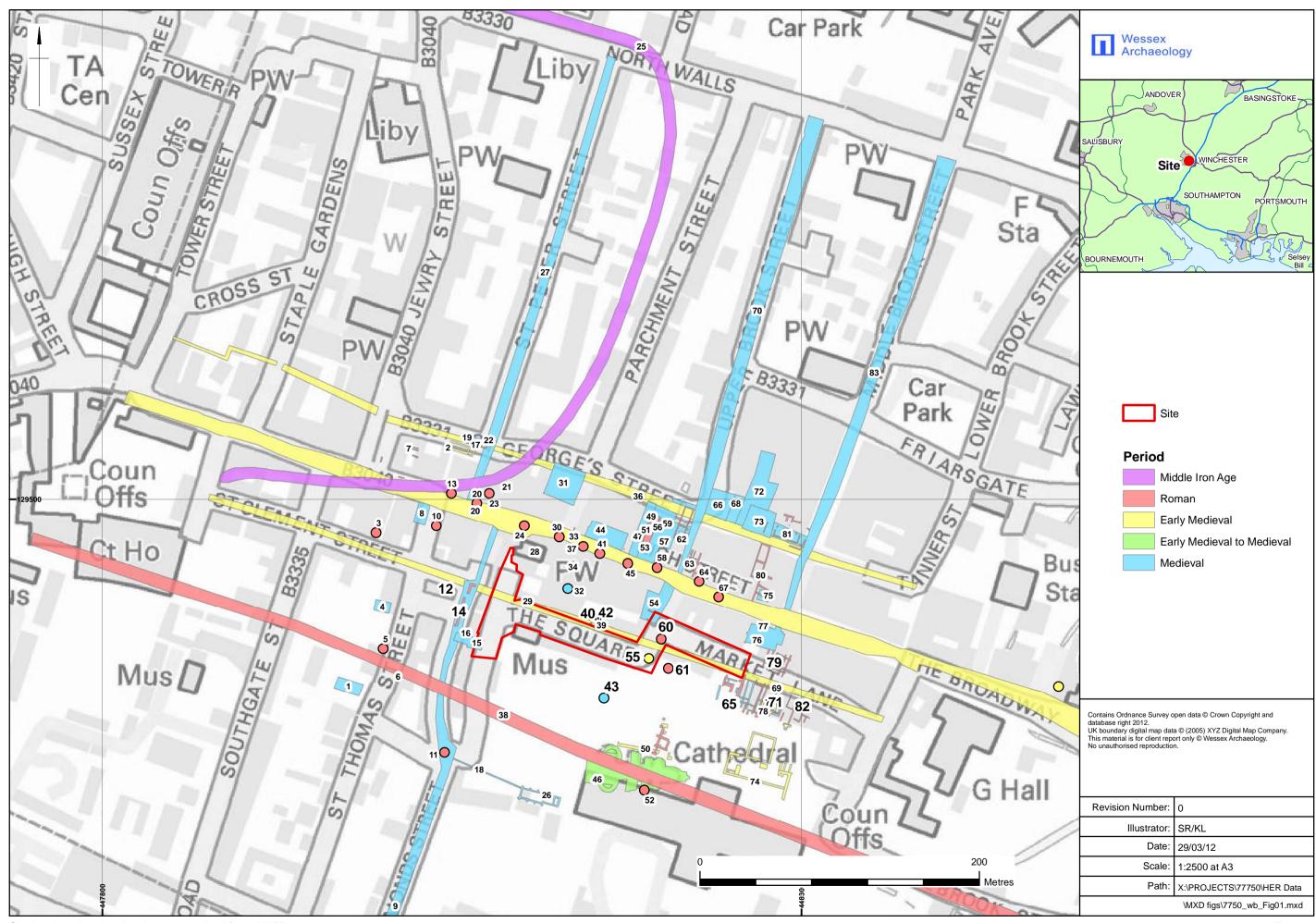
Place of issue or Salisbury

publication

Description Standard soft cover A4 watching brief report

Entered by Sian Reynolds (s.reynolds@wessexarch.co.uk)

Entered on 17 February 2012



Site location plan showing data summarised from WHER

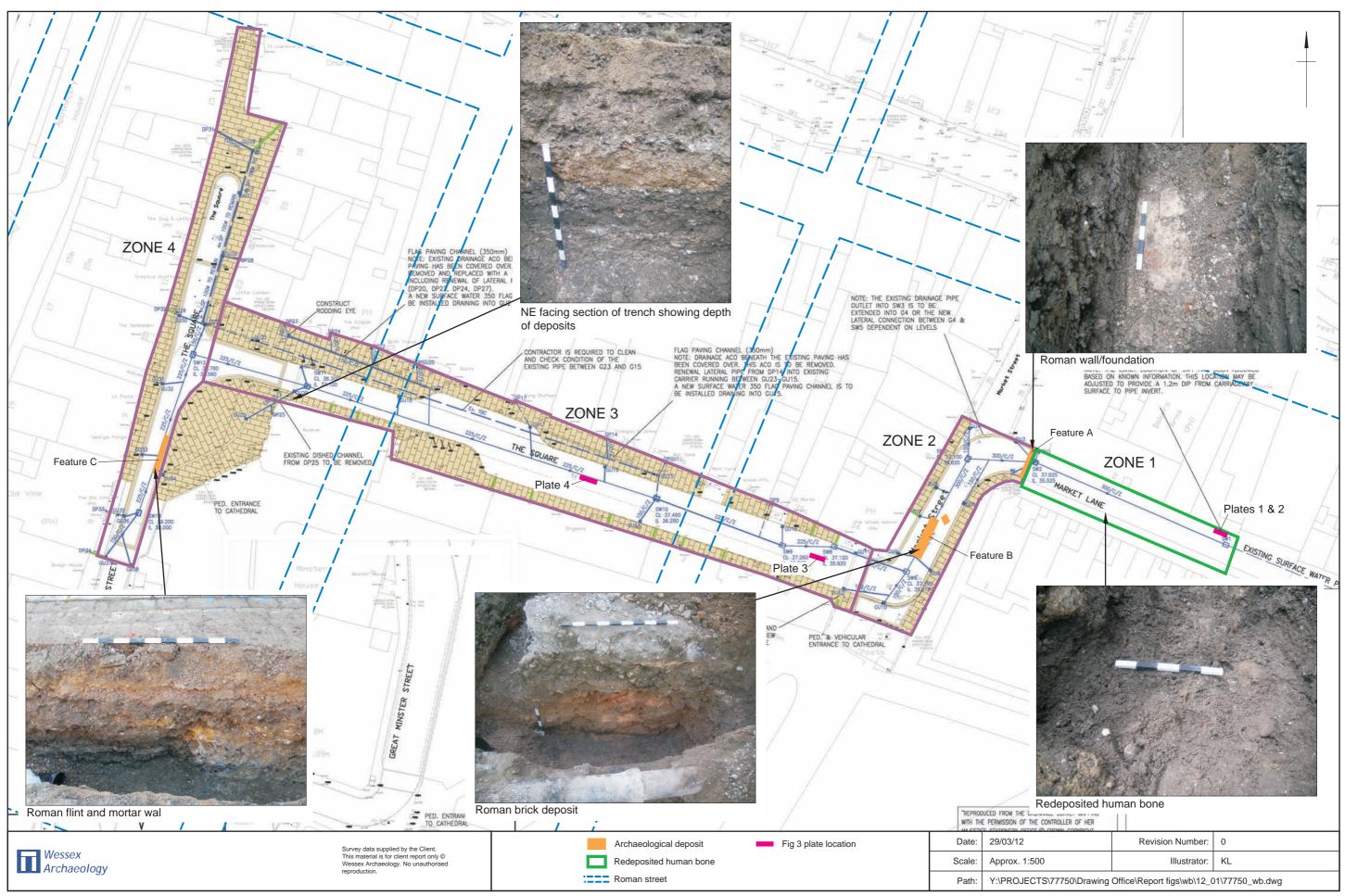




Plate 1: Post-medieval kerb stones



Plate 3: South-west facing section of trench showing depth of deposits



Plate 2: Relationship between kerb stones and later brick built utility



Plate 4: North-east facing section of trench showing depth of deposits

Wessex Archaeology

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Plates 1 to 4







For more information visit www.wessexarch.co.uk

