

**34-56 Upper Orwell Street**  
**Ipswich**  
**Suffolk**  
*Archaeological Evaluation*



*for*  
Derrivo Ltd.

CA Project: IPSUOS001  
CA Report: 2019-038

June 2019





34-56 Upper Orwell Street  
Ipswich  
Suffolk

## Archaeological Evaluation

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CA Report: 2019-038



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## SUMMARY

<b>Project Name:</b>	34-56, Upper Orwell Street
<b>Location:</b>	Ipswich
<b>NGR:</b>	616706 244457
<b>Type:</b>	Evaluation
<b>Date:</b>	29 - 30 April 2019
<b>Planning Reference:</b>	IP/16/01179/FUL
<b>Location of Archive:</b>	To be deposited with SCCAS
<b>Site Code:</b>	IPS 2070

An archaeological evaluation was undertaken by Cotswold Archaeology in April 2019 at 34-56, Upper Orwell Street, Ipswich, in advance of a proposed development. Four test pits were mechanically excavated. Below an overburden of 19th and 20th century material a dense, pale brown sandy silt, extending to a depth of c.3m below the present ground level, was revealed in each of the four pits. This has been interpreted as fill within the medieval town ditch that runs along the line of Upper Orwell Street although at no point was either edge or the base of the ditch positively identified. A monolith sample was taken from close to the top of this deposit, analysis of which suggested it originated from the natural geology and had been laid down by natural processes. It did not identify any evidence suggesting it was related to flowing water despite documentary evidence for a stream within the ditch. Very limited finds were recovered from the ditch fills. This is partly due to the method of excavation but is also a reflection of the near sterile nature of the ditch fills suggesting a deliberate policy banning the deposition of waste. Finds that were recovered consist of small pieces of animal bone, a small sherd of early medieval pottery and some fragments of tile dated to the medieval/post-medieval period. A piece of worked stone of a probable medieval date was recovered from the upper post-medieval deposits overlying the ditch fills (Mark Sommers for Derrivo Ltd.).



## 1. INTRODUCTION

- 1.1 In April 2019 Cotswold Archaeology (CA) carried out an archaeological evaluation for Derrivo Ltd. on a parcel of land running along the western edge of Upper Orwell Street, Ipswich (centred at NGR: 616706 244457; Fig. 1). The evaluation was commissioned following advice from the Suffolk County Council Archaeological Service (SCCAS), to the Local Planning Authority (LPA) and communicated to the client, that in accordance with the National Planning Policy Framework an archaeological investigation at this early, pre-application, stage of the project would provide information regarding the nature of any below ground heritage assets that may be present. This information could then be used to inform any future preservation or mitigation strategies that can then be planned in advance of a formal planning application being submitted.
- 1.2 The evaluation followed the undertaking of a Desk-Based Assessment (DBA) (Sommers 2019). The DBA and the field evaluation were carried out in accordance with a *brief* (dated 7/2/2019) prepared by Dr Abby Antrobus of the SCCAS, the archaeological advisors to the LPA (Ipswich Borough Council). With regards to the undertaking of the field evaluation a detailed *Written Scheme of Investigation (WSI)* was produced by CA (2019) and approved by Dr Antrobus. The fieldwork also followed *Standard and guidance: Archaeological field evaluation* (ClfA 2014) and was monitored by Dr Hannah Cutler (SCCAS), who visited the site on the 20th April 2019 and was present during the excavation of Test Pit 3.

### ***The site***

- 1.3 The proposed development area was 0.06ha in area and comprised a strip of land running along the western edge of Upper Orwell Street, up to the junction with Barclay Street. It was the site of a terrace of 19th century houses, which fronted directly onto the street, that were demolished in the early 21st century (Nos. 34-56, evens, no. 56 was still standing at the time of the evaluation but is to be demolished). To the west of the site lay a large public car park and to the south are extant properties. The area of the carpark is a Scheduled Monument (1005983), this also includes the small area of the site that extends to the west. The site was fenced on all three of the open sides with a mixture of low wooden rail or steel tubing, although for the purposes of the evaluation it was enclosed with Heras fencing.
- 1.4 The site sloped down gently to the south and east from a high of c.9.3m AOD in the northwest corner down to c.8.2m AOD in the southeast. At the time of the evaluation

the site comprised areas of planting along the western and eastern edges with a hard surface formed of imported crushed stone running down the centre.

- 1.5 The underlying bedrock geology of the area is mapped by the British Geological Survey (BGS) as clay, silt and sand of the Thanet Formation And Lambeth Group, a deposit formed approximately 48 to 66 million years ago in the Palaeogene Period. This is overlain by a superficial geology of sand and gravel of the Lowestoft Formation, formed up to 2 million years ago in the Quaternary Period. Excavation of the test pits did not expose the natural subsoil and consequently it's actual composition could not be ascertained.

## 2. ARCHAEOLOGICAL BACKGROUND

- 2.1 The initial stage of this project, as outlined in the *brief* (Antrobus 2019), was the undertaking of a Desk-Based Assessment (Sommers 2019). The full report will be held in the site archive and will ultimately be available from the Archaeological Data Service website (<https://archaeologydataservice.ac.uk/>). A summary of the pertinent results of the DBA is reproduced below:

*The site lies along the line of the Late Saxon and medieval town defences. An excavation adjacent to Lower Orwell Street, to the south of the development area, recorded the Late Saxon defensive ditch and its medieval replacement. Middle Saxon features were also identified, at least one of which had been cut by the Late Saxon ditch. A stream, which formerly ran down Upper and Lower Orwell Street, ran alongside the Late Saxon defence but was incorporated into the medieval ditch. Map evidence suggests that Upper Orwell Street, and Lower Orwell Street, are descended from a Saxon street that ran around the outer edge of the town defences. Based on the projected line of these defences, it is highly likely that a similar pattern of evidence would be present within the development area. The site is also located close to an area associated with the Saxon pottery industry. A number of kilns dating from the Middle and Late Saxon periods and other occupation evidence has been recorded immediately to the west and northwest and further evidence for this may survive towards the rear of the site. Mapping evidence shows that from at least the early 17th century there has been a continuous row of closely set buildings within the development area. These buildings were presumably situated upon the backfilled medieval town ditch, and the yards to the rear, or possible a linear plot to the west, were probably on the site of the former rampart. The last buildings on the site were a terrace of mid to late 19th century houses that were demolished in the early 21st century. At least five of the houses were probably cellared.*



### 3. AIMS AND OBJECTIVES

- 3.1 The objectives of the evaluation were to provide information about the archaeological resource within the site, including its presence/absence, character, extent, date, integrity, state of preservation and quality, in accordance *Standard and guidance: Archaeological field evaluation* (ClfA 2014). This information will enable the Local Planning Authority, Ipswich Brough Council, to identify and assess the particular significance of any heritage asset, consider the impact of the proposed development upon it, and to avoid or minimise conflict between the heritage asset's conservation and any aspect of the development proposal, in line with the *National Planning Policy Framework* (DCLG 2018).

### 4. METHODOLOGY

- 4.1 The fieldwork comprised the excavation of four test pits in the locations shown in Figure 2. The test pits were located to sample all areas of the site and the proposed plan was approved by the curator. All test pits were excavated by a mechanical excavator equipped with a toothless ditching bucket and operated under constant archaeological supervision. It was intended to excavate down to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first, and undertake hand excavation of the exposed deposits. In the event, the first significant archaeological horizon was interpreted as a relatively sterile ditch fill and, due to the depths involved and the impracticality of hand excavation, this was excavated by machine with the aim of reaching more interesting deposits or the natural subsoil. Excavation continued down to the maximum reach of the machine (c.3.2m) but no significantly different deposits were exposed and the natural subsoil was not positively encountered.
- 4.2 It was not possible to safely access the deep excavations and they could not be easily made safe due to the restricted nature of the site. Recording was primarily through the construction of measured sketch sections and photography, with suitable scales in place. Where possible, the locations of the test pits were recorded using a Leica Global Positioning System (GPS), which also provided accurate height data. Due to the extreme depths of the test pits and the proximity of public areas, each test pit was immediately backfilled once the recording was complete.

- 4.3 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: *The Taking and Processing of Environmental and Other Samples from Archaeological Sites*. As the probable ditch fill appeared to be water lain, steps were taken to obtain a monolith sample. To achieve this Test Pit 2 was excavated to a safe working depth (c.1.2m) before the edges were stepped in and a smaller test pit excavated in the centre. This enabled the test pit to be safely entered by staff in order to hand clean a section and take a column sample. Bulk soil samples were also taken. Two further bulk soil samples were taken from spoil that originated from close to the base of Test Pit 3.
- 4.4 The archive and artefacts from the evaluation are currently held by CA at their offices in Suffolk. Subject to the agreement of the legal landowner the artefacts will be deposited in the SCCAS Archaeological Store, along with the site archive. A summary of information from this project, set out within Appendix E, will be entered onto the OASIS online database of archaeological projects in Britain.

## 5. RESULTS (FIGS 2-6)

- 5.1 This section provides an overview of the evaluation results; detailed summaries of the recorded contexts, finds and environmental samples (palaeoenvironmental evidence) are to be found in Appendices A, B and C respectively. Details of the relative heights of the top of the archaeological levels encountered in the trenches, expressed as metres Above Ordnance Datum (m AOD), appear in Appendix D.
- 5.2 Four test pits were excavated across the site (numbered TP1 to TP4), as depicted in Figure 2. The results from each test pit were similar with c.1m to 1.6m of modern and post-medieval material overlying what initially appeared to be an homogenous deposit of pale grey-yellow silt that extended to depths of around 3.2m below ground level. This deposit was interpreted as a fill within a large feature, interpreted as the town ditch (cut number 0025), although neither edge, or the base, of the cut was conclusively identified in any of the test pits. A description of each test pit follows below.

### ***Test Pit 1 (Figs 2 and 3)***

- 5.3 Two concrete surfaces (0004 and 0006) were encountered at depths of 0.8m and 1.1m below the present ground level at the west edge of the excavation. These were

divided by a roughly north-south aligned wall built of soft red brick and cemented with a lime mortar (0005). All are related to the terrace of 19th century housing that formerly stood on this site and were buried below topsoil (0001) and a c.0.5m thick layer of demolition debris (0002). To avoid these obstacles the test pit was extended to the east where it was possible to excavate a trench measuring 1.8m by 4.2m down to a depth of 3.6m below the ground level at the western edge of the test pit (2.8m below the eastern edge). The north face of the test pit was drawn and photographed, the east face was also photographed (Fig. 3). This revealed a c.0.6m thick deposit of dark brown to black soil with occasional fragments of red brick and tile (0003) that was interpreted as a probable post-medieval through to 19th century topsoil. This layer sealed a c.1.5m thick deposit of mid grey-yellow silt interpreted as the upper fill of ditch 0025. Two further deposits were identified below this, a dark grey-brown silt with possible charcoal flecks (0008) and yellow gravelly sand (0009,) which may have been the natural subsoil but was more likely a lens of material within the ditch fill. The interface between the layers 0008 and 0009 sloped down to the west which could possibly indicate an edge of the feature or a tip/fill line.

#### ***Test Pit 2 (Figs 2 and 4)***

- 5.4 This was actually the fourth pit to be excavated. As similar results had been identified in the other three test pits the method for the excavation of this pit was modified to enable access so that a monolith sample of the probable ditch fill could be taken. The overburden was removed (modern layers 0001 and 0002, the demolition layer 0018 and the 19th century/post-medieval deposit 0003), down to the top of the upper ditch fill. The test pit edges were then stepped in and a smaller pit (c.1.8m square) was cut to a depth of c.1.2m. The northern face of this central, deeper excavation was then cleaned and a monolith sample taken for assessment, the results of which can be found in Section 7.5. Examination of the cleaned section revealed that the ditch fill, which was previously thought to be homogenous, was actually comprised of a number of different layers of very similar sandy silts of subtly differing shades (layers 0010, 0011, 0012 and 0013). Two small pieces of animal bone and a fragment of tile were recovered from these layers (see 6.2). Bulk soil samples (Samples 3 and 4) were taken from layers 0012 and 0013 (see 7.4).
- 5.5 A cellar, defined by a red brick wall with lime mortar (0014) and filled with rubble, was located towards the eastern edge of the test pit. It was clearly 19th century in date and would have been part of No.46 Upper Orwell Street, the house that had formerly

stood on this site. It measured at least 3.4m by 1.2m but continued beyond the limits of the test pit. It would have presumably been the width of the house (c.4.4m) and would have extended to the line of the front wall (c.3m). A lightwell is marked on the pavement in front of No.46 on the Ordnance Survey Town Plan (1883).

### **Test Pit 3 (Figs 2 and 5)**

- 5.6 A red brick wall (0015) on a concrete footing was noted running roughly north-south across the test pit. This could not be removed without potentially collapsing the edges and consequently it was not possible to excavate further in the western half of the test pit. However, in the eastern half it was possible to excavate to a depth of 3.2m, the maximum reach of the machine. Following excavation the east face of the test pit was recorded (Fig. 5). Below the deposit of imported hardcore and demolition debris (0002) and the post-medieval material (0003) lay a deposit of dirty yellow - grey silt (0016). At the base of this a slighter darker layer of silt (0017), c.0.2m thick, was visible. Beneath this deposit, a layer of yellow/orange sand and gravel, which may have been the natural subsoil or was possibly a simply a lens of material, was briefly exposed. Unfortunately the machine could not reach any deeper and consequently the precise nature of this deposit could not be determined. Bulk soil samples were recovered from the spoil heap. Sample 1 was taken from material that originated from close to the base of layer 0016 and Sample 2 was from layer 0017.

### **Test Pit 4 (Figs 2 & 6)**

- 5.7 Excavated to a depth of just over 2m, which revealed that the probable ditch fill deposits occurred at a depth of c.1m below the present ground level. The west face was recorded (Fig. 6). Four layers, interpreted as fills within ditch 0025, were identified. The upper ditch fill layer (0021) comprised a dark brown silt, which overlay a brown grey sandy silt (0022), over a lens of sand and gravel (0023) which tapered towards the south. It in turn overlay dark grey silt (0024) which continued beyond the base of the test pit. A piece of worked stone was recovered from the spoil heap (SF1001), which probably came from one of the post-medieval deposits above the fill of the ditch.

## 6. THE FINDS

*Stephen Benfield*

- 6.1 There is only a small quantity of finds from the evaluation. Of these, very few were recovered by hand, the majority come from processing bulk soil samples (Appendix B).

The stratified finds all come from the fill of ditch 0025. The hand collected material consists of a few pieces of undated animal bone (including a sheep tooth) and a piece from a peg-tile. The processed soil samples produced a slightly large group of similar finds consisting of a single small sherd of pottery, small quantities of ceramic building material (including peg-tile), animal bone and shell. The pottery can be dated to the early medieval period of the 11th-12th century (6.2) while the ceramic building material can be broadly dated as late medieval-post-medieval/early modern (6.3).

In addition to these finds a single piece from an octagonal column in an oolitic limestone, recorded as a small find (SF1001), was recovered as an unstratified find from topsoil (6.4). The stone appears likely to have originated in the Barnack quarries and given this a medieval or early post-medieval date seems probable for this piece.

The small quantity of finds precludes any significant comment. The presence of thin flat tile, almost without doubt peg tile, in the ditch fill context (0017) would (unless intrusive) appear to indicate the fill is probably of at least late medieval date down to that level. Also, it can be observed that the number of finds recovered appears unusually small in relation to the location of the site within the town. This may be due in part to the nature of the evaluation and limited opportunity to recover finds. The material from the soil samples indicates more finds are present within the layers of the ditch fill encountered; although again these do not appear especially rich in bulk finds material.

### **Pottery**

- 6.2 A single small sherd of pottery (weight <1g) was present in bulk soil Sample 3 taken from context (0013) in the ditch 0025. It has a relatively fine sandy fabric and can be identified as probably an early medieval ware (Fabric EMW), dating to the period c.11th-12th century.

### 6.3 **Ceramic building material (CBM)**

Pieces of plain, flat, orange-red tile between 10mm-12mm thick were recovered from contexts (0011) and (0017), both fills within ditch 0025. The latter piece (weight 15g) came from a processed a bulk soil sample. Both are almost without doubt peg tile (rather than nibbed tiles) and are likely to date either to the late medieval period. Peg tiles begin to appear from c.late 12th or early 13th century but are probably not common before c.14th century or later. They remain in common use throughout the post-medieval period and into the early modern era. As the pieces here are from an urban setting in a town which would have well appointed ecclesiastical and lay buildings they could date from any time from the c.13th century onwards. A small piece of CBM, unidentified brick/tile (weight 2g), was also present in the bulk soil sample taken from context (0016) within ditch 0025. Again this is likely to date to after c.13th-14th century

### **Worked stone**

- 6.4 An architectural stone, consisting of a length of a broken, small, octagonal column or column-like piece, was recovered as an unstratified find from topsoil in the site (0001). It was recorded individually as a small find (SF1001) and is described below:

SF1001 (0001) Worked stone. One end of an octagonal, column-like shaft in a cream coloured bioclastic limestone. The piece survives to a length of 360mm and is 130mm wide (weight 9000g). One side has a smooth, near rounded (semi-circular) surface, although the three flat faces making up part of the original octagonal form can still be made out. The smoothing of the surface extends onto the adjoining flat faces on either side of this. One of the three remaining faces on the other side of the piece also has some smoothing down on side. The other two appear as original cut and dressed stone, otherwise unaltered, and retain traces of diagonal tooling marks. The surviving end of the piece is unmodified beyond the original masons work and also has tooling marks across it which are more pronounced than those surviving on the sides. A small area of white, hard, lime-based mortar is present on the surviving end. The smooth rounded side has a recently made large scrape or gouge, probably from the bucket edge of a mechanical excavator.

It is difficult to add much in terms of interpretation to the description. The bioclastic (shelly) limestone is quite coarse, but likely originates from the former quarries at Barnack in Cambridgeshire. The limestone there is a part of more extensive limestone deposits known as the Lincolnshire limestone formation, the Barnack stone itself being commonly referred to as Barnack rag; although in actuality there are three

distinct kinds of Barnack stone, the (shelly) ragstone being one type (Clifton-Taylor 1972, 80). Barnack stone was extensively quarried during the medieval period and was used as building stone in the cathedrals at Peterborough and Ely as well as important abbeys such as Bury St Edmunds, Crowland and Ramsey. By the Tudor period much of the stone around Barnack, notably the ragstone deposits, was exhausted and the main quarry site was abandoned, although some extraction of stone continued up until the early years of the 20th century (*ibid*).

The rounded and smoothed half of the piece appears to be the result of extensive wear, the stone having been worn smooth. It does not appear to deliberate modification or to represent damage caused by weathering. This indicates it had been located in a sheltered area, possibly internal to a building. Given the nature of the quarrying at Barnack, and assuming that it is Barnack stone, it appears most likely to be originally of medieval or possibly early post-medieval date. It can be noted that the former medieval Blackfriars monastery was situated close by to the southeast (SACIC Report No. 2019/012). However, beyond its appearing to be a small column of some form, the specific architectural function of the piece, as originally conceived, is not known. The extensive wear could indicate continual rubbing, possibly in a passage area or part of a door surround, or possibly on part of a monument tomb structure, but this is very speculative.

## 7. THE BIOLOGICAL EVIDENCE

- 7.1 The animal bone and oyster shell suggest that a certain amount of food waste had found its way into the ditch here (ditch 0025); although the quantity of material does not seem large and is mostly quite broken-up.

While poor in terms of identifiable material, preserved organic remains recovered from bulk soil samples reflect waste from domestic activities such as food preparation. This might have been taking place in the vicinity. An absence of chaff may well result from the processing of cereals elsewhere, these then being imported to the site in the form of clean grain as might be expected of an urban context. The presence of hammerscale indicates light industry in the form of metal working that was probably also taking place in the vicinity. It is noted that material recovered from these samples becomes increasingly sparse through the upper levels of the fill. This could suggest that domestic activity was taking place in the vicinity whilst the ditch



was more open but was later reduced, or that domestic waste ceased to become deposited within the ditch, such action possibly becoming less acceptable or the opportunity being removed as the ditch filled.

Soil monolith samples revealed that the fill that could be accessed during the evaluation, representing the upper surviving part of the town ditch, is homogenous and reflects an accumulation due to natural processes such as erosion, rain or aeolian action. No fine structures, such as grain sorting or lamination, which could imply the presence of water flow or an origin involving water flow were recorded.

### ***Animal Bone***

- 7.2 Small amounts of animal bone were recovered from the fill of ditch 0025. The hand collected bone consisted of a single sheep tooth and a shattered piece of rib from a medium size mammal. More was recovered during processing bulk soil samples from the ditch fill. This consists of a piece from a large mammal bone (weight 43g), possibly part of a cattle femur, which came from context (0012); a group of pieces of rib bone, a few ribs appear to have chopped ends, with some vertebra pieces (37 pieces weighing 43g) from context (0013); a small piece of bird long bone and vertebra piece, the structure of which suggests it is also from a bird, (combined weight 1g) from context (0016) and a small piece of bone (weight <1g), possibly burnt (whitened) from context (0017).

### ***Shell***

- 7.3 Broken pieces of oyster shells were recovered from a bulk soil sample (Sample 2) taken from fill (0017) in ditch 0025. In total there are seven pieces with a combined weight of 13g.

### ***Plant Macrofossils***

*Anna West*

#### *Introduction, methods and results*

- 7.4 Four bulk samples, of between 20 and 40 litres, were taken from four contexts during the evaluation. Although separately numbered it was not possible to positively determine if these were from unique deposits within ditch 0025. The samples were processed in full in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.



The samples were processed using manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned using a binocular microscope at x10 magnification and the presence of any plant remains or artefacts are noted on Table 3 (Appendix C). Identification of plant remains is with reference to *New Flora of the British Isles*, (Stace, 1995).

The non-floating residues were collected in a 1mm mesh and sorted when dry. All artefacts/ecofacts were retained for inclusion in the finds total. The residues were scanned using a magnet to recover any ferrous material that may be present.

### *Discussion*

The samples produced relatively small flots between 5ml and 15ml each. The preservation was through charring and was generally fair to poor. The majority of the flot material was made up of wood charcoal, a number of fragments present were larger than 10mm making them suitable for species identification or radiocarbon dating should this be considered necessary. No attempt at species identification has been made for the purposes of this report.

Charred cereal grains were present in all the samples in low numbers. Most of the cereal remains were puffed, fragmented and abraded, a thin layer of silt also remained adhered to the surface of the plant macrofossils recovered, making identification difficult or impossible.

Cereal remains were most common in Sample 4, fill 0013, the lowest fill recorded within the exposed section of ditch 0025 during the evaluation. The rounded grains of a free threshing bread wheat (*Triticum* sp.) were most common, but only present as four identifiable grains. Barley (*Hordeum* sp.) was also possibly present, but in lower numbers. A small number of indeterminate cereal grain fragments were also present, but again as less than ten specimens. Small legumes, most likely peas (*Pisum* sp.), were also observed in low numbers. A single charred nutshell fragment and a number of uncharred elderberry (*Sambucus nigra* L.) pips were also recovered, along with a charred grass (Poaceae) caryopsis. A single fragment of pottery dating from the 11th-12th centuries and a small quantity of animal bone, including a fragment of bird bone, were recovered from the non-floating residue of this sample.

Sample 3, from fill 0012, also contained very low numbers of cereal grains. Wheat again was present as two grains, although the caryopses within this flot were very

abraded and coated in silt, so identification is rather tentative. A single possible barley grain was also present, along with a single possible rye grain, although this may be a twisted barley end grain, the condition of the remains makes it very difficult to determine with any certainty. Uncharred elderberry pips were also present but were less common than in Sample 4, from the fill directly below. A single, possible charred seed capsule, tentatively identified as heather family (Ericaceae) was observed within this sample. Heather may have been collected for use as thatch, litter or kindling material. Two small spheroids were present within the flot, although no metal working debris was recovered from the non-floating residue from this sample. Small fragments of coal, at less than 5mm in diameter, were recovered in low numbers.

Fill 0017 produced a small fragment of late medieval roof tile. Sample 2, from this context was poor in terms of charred plant remains, a single cereal grain was recovered, but was too fragmented to determine whether it was wheat or barley. Uncharred elderberry pips were present as less than ten specimens, other uncharred seeds were also present within this flot. Sedge (*Carex* sp) were most common and again may represent material used as thatch or litter, or a damp area of grassland or meadow within the vicinity. Goosefoots (*Chenopodium* sp.) and a single possible hyssop (*Hyssopus officinalis* L.) were all observed within this sample and bittersweet (*Solanum dulcamara* L.) was recovered from Sample 1, fill 0016 and Sample 2, fill 0017. The fact that these were uncharred could possibly mean they became incorporated within the ditch fill from nearby gardens and preserved in the damp or waterlogged conditions. Although many of these plants have culinary or herbal uses, and therefore these remains may represent domestic waste. A fragment of fish bone was also recorded within Sample 2, and this is likely to represent food waste. A single ferrous spheroid was present within the magnetic material recovered from the non-floating residue of this sample. Spheroid hammer scale is produced during hot welding, the presence of this material within the samples, although only in low numbers, suggests that metal working was taking place in the vicinity of the site.

Charred cereal grains were sparse within Sample 1, upper fill 0016. Two bread wheat grains and a small number of indeterminate fragmented grains were recovered with a single possible pea present within the flot and a single abraded legume fragment recovered from the non-floating residue. Elderberry pips were still present but in very low numbers within this sample.

All this material was observed during scanning under a microscope, and although their presence is recorded here they are too small or too sparse to require further work by the relevant specialist.

#### *Conclusions and recommendations for further work*

In general, the samples were poor in terms of identifiable material. The presence of cereal grains and legumes suggest domestic activities, such as food preparation, were taking place in the vicinity of the site. The absence of chaff suggests the cereal was being processed elsewhere and most likely imported to the site in the form of prime grain, ready to be utilized.

The small number of legumes observed may not be representative of the importance of pulses within the diet. As pulses do not need to be processed using heat, in the way some cereals do, they are less likely to be exposed to chance preservation through charring and so are often under represented within archaeological deposits. The presence of legumes may indicate that either small scale garden-type production of food crops or larger crop rotation was taking place nearby.

The presence of hammerscale suggests that metal working was taking place in the vicinity. Many ovens and fires would have had multifunctional purposes with 'food preparation, cereal drying, malting and craft or light-industrial' activities all taking place on a domestic level at the same location (Fryer 2010).

It is mostly likely that the material recovered from these samples, through consecutive fills of ditch 0025, represents domestic activity taking place in the vicinity during the Medieval period. Although, the sparse, abraded and fragmented nature of the remains may suggest that the material has been moved through the actions of wind, water or trample before becoming incorporated within the fill of the ditch. The fact that the material becomes increasingly sparse through the upper fills of the ditch, may suggest that domestic activity was taking place in the vicinity whilst the ditch was open, but then reduced or domestic waste ceased to become deposited within the ditch as it was backfilled.

It is not recommended that any further work is carried out on this material at this stage, but if further interventions are carried out on this site it is recommended that bulk samples should be taken from any well sealed and well dated context, in order to investigate the nature of the cereal and metal working waste, any accompanying

weed seed assemblage may provide information regarding the utilisation of the surrounding landscape and the economy of the site.

## Geoarchaeological assessment of monolith samples

*Agata Kowalska*

### *Introduction*

- 7.5 The main focus of this report is the examination of monolith samples obtained during the evaluation. In total five samples were recovered (monolith samples 1-5) from a sequence of deposits in a possible early medieval ditch 0025.

The site is situated within the urban area of the Suffolk town of Ipswich and is associated with possible late 9th/early 10th century Anglo-Saxon settlements (Sommers 2019). A previous excavation report states that a stream once ran along the line of Upper and Lower Orwell Street, and that these roads were previously known as the Wash. A Danish defensive ditch lay to the west of the stream although the medieval ditch is thought to have been formed through a modification of the streambed (Sommers 2019, 13-14). It is assumed that, the stream would have been within the town ditch.



Plate 1. North facing section of ditch fill in TP2 showing location of monolith tins 1-5 (numbered from the top of the sequence).

The monolith samples were retained in steel tins measuring 100 x 100 x 250mm and were wrapped and labelled following standard sampling procedures (Plate 1). The monoliths were opened, cleaned, photographed and recorded according to standard criteria provided by Jones *et al.* (1999) and Tucker (2011). All observations of the monolith samples are summarised as interpreted images in Appendix C (Tables 2-6). Colours were described by using Munsell Soil Colour Chart (Munsell Colour 2018).

The objectives of the report are:

- *to identify the mode of deposition of the sediment units*
- *to assess the palaeoenvironmental potential of the units encountered in monolith samples in order to provide information about the environment in which the human activity took place*

### *Results and Discussion*

The lower most deposit, Unit 4 (fill 0013), is c.0.25m thick and consists of a dark yellowish brown (10YR 4/4) silty sand with few dark reddish brown (5YR 3/3) iron and manganese oxides accumulations. Bands/patches of pale brown (10YR 6/3) to light olive brown (5Y 5/4) fine to medium sand have been recorded within the Unit. An accumulation of well sorted coarse sand to very coarse sand with very few subangular to subrounded pebbles and fragments of bivalve shells were noted between 0.17m and 0.21m. The sandy and gravelly bands seem to accumulate on the west side of the ditch and sloping towards the possible base of the ditch. The sand and gravel with bivalve shell fragments could be most likely derived from the natural geology - the Lowestoft Formation. On the other hand, the presence of well sorted gravel and well sorted pure sand patches could be associated with the possible streambed (deposited by water flow) that once ran along the line of Upper and Lower Orwell Street. Therefore, the ditch might be formed through a modification of the streambed. Dark reddish brown (5YR 3/3) iron oxides concentrations suggest changing oxidation conditions caused by changes of water table. The wood charcoal fragment was coated with iron. In aerated water rich in ferrous iron (drains from marsh) plant residues often become thickly coated with a deposit of ferric hydroxide (Limbrej 1975, 73). The wood charcoal could also be derived from the natural burning rather than be related to specific human activities. Unit 4 may represent the lower, possible primary fill of the ditch which accumulated due to natural processes such as erosion of sides, wind-blown material and rain wash. The presence of very rare charcoal granules may also indicate some human activity in the close area of the ditch.



Unit 4 is overlain by Unit 3 (fill 0012). Unit 3 is c.0.20m thick and consists of a brown (10YR 4/3) to dark brown (10YR 3/3) silty sand with very few rounded chalks and subangular to angular medium pebbles. The few dark reddish brown (5YR 3/3) iron oxides concentrations suggest changing oxidation conditions. The coarse mineral inclusions are possible derived from the natural geology - the Lowestoft Formation. The Unit is homogenous with massive structure without the visible root holes which, if present, could indicate a plant stabilisation layer within the ditch. The homogenous and well sorted texture of the fill suggests that Unit 3 was possibly accumulated due to natural processes such as side erosion, rain action and wind-blown sediments. Unit 3 and Unit 4 are similar in terms of colour and texture, also the contact boundary between Unit 4 and 3 is diffuse and indicates that there was no truncation and no cessation in the sediment accumulation (Historic England 2007, 15). The presence of randomly distribute charcoal granules throughout the unit suggest some human activities within the area.

Overlying Unit 3 was Unit 2 (fill). Unit 2 is c.0.22m thick and consists of a dark yellowish brown (10YR 3/4) silty sand with very few chalk granules derived from the natural geology. Patches of very dark grey brown (10YR 3/2) sandy silt were observed at the top of the unit and were possibly incorporated from unit above due to bioturbations. Common dark reddish brown (2.5YR 3/4) iron oxide accumulations suggest changing oxidation conditions, which could accumulate along root holes and pores. The redox features imply the presence of damp conditions/environment within the ditch which could support plant growth, however no structures or fine root holes were recorded to clearly suggest soil stabilisation. Bone fragment and very few randomly distributed charcoals granules were recorded within the Unit. The contact boundary separating Unit 3 and 2 is diffuse which suggests a gradual transition into the overlying unit. Unit 2 is homogenous and with very few anthropogenic inclusions, therefore more likely this Unit accumulated due to natural processes.

The upper most Unit 1 was c.0.50m thick. The Unit consists of dark brown (10YR 3/3) sandy silty loam with very few angular flint and rounded chalk granules. Patches of very dark grey brown sandy silt (10YR 3/2) are present. The unstratigraphic and darker patches could be linked with weakly developed soil/stabilisation within the ditch or may represent organic top soil washed in to the ditch due to heavy rain action. The presence of a clay fraction (more clayey and cohesive than lower units) could be a result of eluviation from a later richer in clay top soil. The contact boundary separating Unit 1 and 2 is diffuse which suggests a gradual transition into the upper unit. The fine

sandy silty loam texture, homogeneity and lack of cultural inclusion suggest natural silting due to rain and wind action.

### *Conclusions and Recommendations*

The fills of the ditch are homogenous with massive structure and have accumulated due to natural processes such as side erosion, rain or aeolian action. No fine structure such as grain sorting or lamination, which could imply water flow, were recorded. The presence of well sorted sandy and gravelly patches may suggest cutting the ditch in a previous streambed.

The visual assessment of the samples determined that these sediments consist predominantly of silty sand and the presence of iron oxide accumulation suggest changing oxidising conditions. It is unlikely that countable or well-preserved concentrations of pollen would be present in these sediments.

## **8. DISCUSSION**

- 8.1 The line of the Late Saxon and medieval town ditch has been traced through documentary evidence and observation of the present street pattern, which is believed to be directly descended from the Saxon street layout. The results of this research strongly suggests that in this area of Ipswich the ditch ran along the line of Lower and Upper Orwell Street and as such it would run along the length of the development area. The excavation of the test pits revealed deep, stratified layers that clearly comprise a made ground deposit. The top of this deposit lies at depths of between 1m and 1.8m, which corresponds directly with the depths of archaeological levels recorded at nearby excavations (1m at IPS 2068, c.50m to the northeast, and 1.8m at IPS 813, c.70m to the northwest). These deposits are clearly filling a feature that is at least 3.2m deep and in excess of 7m in width. Given these dimensions it seems beyond doubt that this feature is indeed the town ditch. West (1963, Fig. 61) shows the original medieval ditch to be 12 feet (3.6m) deep with basal fill described as 'heavy gravel with mud'. It is possible that the material noted at the base of Test Pit 3 may have been similar and could suggest that this test pit was close to reaching the base of ditch. West suggests the ditch was 20 foot (6m) wide but with regards to the results of the test pitting this would seem too narrow as at this width, and given the recorded basal profile, at least one of the ditch edges should have been encountered in one or more of the test pits. That said, it is probable that the ditch's profile would have varied

along its length and West's results should not be seen as representative for the entire ditch. In the vicinity of the site it would appear that the ditch encompasses the entire width of the development area and, assuming the outer edge would not have been particularly steep, it could potentially include much of the adjacent roadway.

- 8.2 Analysis of a monolith sample taken from the upper area of the ditch fill suggests the deposits are related to natural processes involving the erosion and deposition of the existing geology. It did not identify any evidence for flowing water. The sample was obtained from the top of the ditch fill sequence, which, despite the lack of evidence, is likely to be late medieval/post-medieval in date, and would suggest that the stream no longer flowed or that it possibly lay to the east.
- 8.3 Unfortunately, the excavation of the test pits did not produce any conclusive dating evidence for the final filling of the ditch although, given the lack of post-medieval material a late medieval/early post-medieval date would seem likely, particularly as early 17th century mapping indicates buildings running along this side of the street (Speede's map of Ipswich, 1610). What is of interest is the relatively sterile nature of the fill given its location on the edge of, or even within, an occupied town. This could suggest a single and swift backfilling event, that presumably involved the relocation of the bank back into the ditch although the monolith analysis does suggest a natural process of infilling which might imply the ditch was kept deliberately clean and that there was a bar to the dumping of waste within it. The lack of artefacts within the fill could also suggest limited activity in the local area during the medieval period.
- 8.4 No evidence for activity in the post-medieval period, prior to the 19th century terrace of houses, was identified in any of the test pits. Frequent remains of the 19th century buildings were present in the form of redbrick walls, concrete surfaces and previous services (water pipes and drains). A cellar was also noted in in Test Pit 2 which appeared to comprise a single chamber under the front half of the house.

## 9. CA PROJECT TEAM

Fieldwork was undertaken by Mark Sommers, assisted by Preston Boyles and Rui Oliveira. The report was written by Mark Sommers. The finds and biological evidence reports were written by Stephen Benfield and Anna West respectively. Assessment of the monolith sample was by Agata Kowalska. The illustrations were prepared by Ellie



Cox. The archive has been compiled by Mark Sommers, and prepared for deposition by Hazel O'Neill. The project was managed for CA by Stuart Boulter, who also edited this report.

## 10. REFERENCES

Antrobus, A., 2019, *Brief for Desk-Based and Trenched Archaeological Evaluation of 34-56 (site of) Upper Orwell Street, Ipswich*, Suffolk County Council Archaeological Service

BGS (British Geological Survey) 2019 *Geology of Britain Viewer* [http://maps.bgs.ac.uk/geology\\_viewer\\_google/googleviewer.html](http://maps.bgs.ac.uk/geology_viewer_google/googleviewer.html) Accessed 13 May 2019

Clifton-Taylor, A., 1972, *The Pattern of English building*, Faber and Faber

English Heritage, 2007, *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. English Heritage

Fryer, V., 2010. 'An assessment of the charred plant macrofossils and other remains from BSE 265' in Antrobus A. L. and Craven J. A. 2011. *Brewer's Garage, Honey Hill, Bury St Edmunds*. Suffolk County Council Archaeological Service report 2011/55

Jones, A., Tucker, M., & Hart, J., 1999< Guidelines and recommendations. In Jones, A., Tucker, M., & Hart, J., (Eds.) *The description and analysis of Quaternary stratigraphic field sections*. Quaternary Research Association. Technical Guide 7, 27-76

Limbrey, S., 1975, *Soil science and Archaeology*

Munsell Colour 2018, *Munsell Soil Colour Chart*, 2009 Revision

Sommers, M., 2019, *34-56, Upper Orwell Street, Ipswich, Suffolk: Desk-Based Assessment*, Suffolk Archaeology Community Interest Company, Report No. 2019-012

Stace, C., 1995, *New Flora of the British Isles*, 2<sup>nd</sup> Ed, Bury St Edmunds, Cambridge University Press.

Tucker, M., 2011, *Sedimentary Rocks in the Field. A Practical Guide* (4th ed.)

West, S., 1963, *Excavations at Cox Lane (1958) and at the Town Defences, Shire Hall Lane, Ipswich (1959)*, Proceedings of the Suffolk Institute of Archaeology, Volume 29, Part 3, 233–303





## APPENDIX A: CONTEXT DESCRIPTIONS

Context Number	Feature Number	Trench	Feature Category	Description <i>Interpretation</i>	Over	Under	Cut by	Cuts
0001	0001	all	Layer/ Finds	Topsoil over majority of site. Dark humic loam of a variable thickness, some has probably been imported to create areas of planting. Number also allocated to a single piece of carved stone recovered from the spoil heap of Test Pit 4. This artefact probably originated from one of the higher deposits.	0002			
0002	0002	all	Layer	Red brick rubble and a reddy brown crushed stone. <i>Demolition material and an imported hardcore used to landscape the site following demolition of former buildings, also used to form 'walkways' along the central area of the site.</i>	0018, 0003	0001		
0003	0003	TP1-3		dark brown to black soil and rubble (red brick, tile, and mortar). <i>Construction and occupation deposits relating to the post-medieval through to the 19th century activity.</i>	0007, 0010, 0014	0004, 0006, 0002		
0004	0004	TP1	Layer	Concrete slab noted in Test Pit 1. <i>Floor surface within an extension to the rear of a property that formerly stood on this site.</i>	0003			
0005	0005	TP1	Wall	Red brick wall, the width of two bricks (a 9 inch wall). <i>The rear wall of a former 19th century terraced house.</i>				
0006	0006	TP1	Layer	Concrete slab noted in Test Pit 1. <i>Section of floor surface within former 19th century house, presumably a later insertion.</i>	0003			
0007	0025	TP1	Ditch Fill	Mid grey-yellow silt with very few inclusions (as viewed from ground level, close inspection was not possible). <i>Upper fill within probable ditch (Cut 0025)?</i>	0008	0003		
0008	0025	TP1	Ditch Fill	Dark grey-brown silt with occasional charcoal flecks (as viewed from ground level, close inspection was not possible). <i>Fill within probable ditch (Cut 0025)?</i>	0009	0007		
0009	0025	TP1	Ditch Fill	Yellow sand with red gravel patches (as viewed from ground level, close inspection was not possible). <i>Possible natural subsoil although more likely a lens of redeposited natural subsoil within a probable ditch (Cut 0025).</i>		0008		
0010	0025	TP2	Ditch Fill	Mid brown grey (with a slightly greenish twinge) slightly sandy silt with occasional charcoal flecks and brown 'organic' streaks. <i>Upper fill within ditch 0025, as seen in section prepared for a monolith sample.</i>	0011	0003	0014	

Context Number	Feature Number	Trench	Feature Category	Description <i>Interpretation</i>	Over	Under	Cut by	Cuts
0011	0025	TP2	Ditch Fill	Mid brown grey (with a slightly greenish twinge) slightly sandy silt (slightly sandier than 0010 above) with occasional charcoal flecks and frequent brown 'organic' streaks. <i>Fill within ditch 0025, as seen in section prepared for a monolith sample.</i>	0012	0010	0014	
0012	0025	TP2	Ditch Fill	Mid brownish grey silty sand with occasional charcoal flecks. <i>Fill within ditch 0025, as seen in section prepared for a monolith sample.</i>		0011	0014	
0013	0025	TP2	Ditch Fill	Mid brownish grey silty sand (slightly paler than 0012) with lenses of pale yellow/white sand and red/yellow gravelly sand, and occasional charcoal flecks. <i>Fill within ditch 0025, as seen in section prepared for a monolith sample.</i>			0014	
0014	0014	TP2	Wall	Red brick wall, the width of two bricks (a 9 inch wall). <i>19th century wall, part of one of the terraced houses that formerly stood within the site. Appears to be associated with a cellar that comprises a single room directly fronting Upper Orwell Street.</i>		0003		0011, 0012, 0013, 0010
0015	0015	TP3	Wall	Red brick wall, the width of two bricks (a 9 inch wall). <i>The rear wall of a former 19th century terraced house.</i>				
0016	0025	TP3	Ditch Fill	Brownish yellow-grey silt (as viewed from ground level, close inspection was not possible). <i>Fill within probable ditch (Cut 0025). Same as 0007? Bulk sample from the lower section of this deposit taken from spoil heap.</i>	0017			
0017	0025	TP3	Ditch Fill	Brown-grey silt, but darker and greyer than 0016 above and with some gravel lenses (as viewed from ground level, close inspection was not possible). <i>Fill within probable ditch (Cut 0025). Bulk sample originating from this deposit taken from spoil heap.</i>		0016		
0018	0018	TP4	Layer	Brick rubble. <i>demolition material from the removal of the 19th terrace that formerly stood on this site.</i>	0019	0002		
0019	0019	TP4	Layer	Dark black silt with rubble (red brick and tile with lime mortar). <i>19th century terrace construction/occupation.</i>	0020	0018		
0020	0020	TP4	Layer	Pale yellow sand. <i>imported material for levelling/surface creation.</i>	0021	0019		

Context Number	Feature Number	Trench	Feature Category	Description <i>Interpretation</i>	Over	Under	Cut by	Cuts
0021	0021	TP4	Layer	Dark grey brown silt (as viewed from ground level, close inspection was not possible). <i>late post-medieval deposit, possibly related to levelling of former ditch area.</i>		0020		
0022	0025	TP4	Ditch Fill	Brown grey sandy, clayey silt (as viewed from ground level, close inspection was not possible). <i>Upper fill within ditch (0025).</i>	0023			
0023	0025	TP4	Ditch Fill	Yellow/orange gravel (as viewed from ground level, close inspection was not possible). <i>Lens of redeposited natural subsoil within ditch (0025).</i>	0024	0022		
0024	0025	TP4	Ditch Fill	Dark grey silt (as viewed from ground level, close inspection was not possible). <i>Fill within ditch (0025).</i>		0023		
0025	0025	all	Ditch Cut	Cut for a very large linear feature. The eastern edge probably lies under Upper Orwell Street whilst the western edge appears to be under the adjacent carpark, neither where seen in any of the excavated Test Pits. What was possibly a natural subsoil was present in the base of the Test Pit 3, at a depth of just over 3.2m, which could potentially be marking the base of this feature although the possibility it was simply a lens of redeposited material could not be ruled out. <i>The site undoubtedly lies along the route of the medieval town ditch, as identified in documentary sources and previous excavations. All four of the Test Pits have cut in its upper fills without encountering the actual cut itself.</i>				



## APPENDIX B: THE FINDS

Table 1 Finds quantities (initial quantification)

Context	CBM		Animal bone		Worked stone	
	No.	Wt/g	No.	Wt/g	No.	Wt/g
0001					1	9000
0011	1	47				
0012			2	7		
0013			1	3		
<i>Total</i>	<i>1</i>	<i>47</i>	<i>3</i>	<i>10</i>	<i>1</i>	

Table 2 Finds catalogue

TP	Ctxt	F/L no	F/L type	Find type	Period	Fabric	Form	Sherd type	No	Wt/g	EVE	Abr / brt	Comments	Finds spot date
4	0001		Topsoil (general)	Stone (architectural)		Shelly limestone (probably Barnack ragstone)			1	9000			Small find (SF1001) Unstratified context (site topsoil). Octagonal, column-like shaft of cream coloured bioclastic (shelly) limestone, broken at one end (length 360mm x width 130mm; each surviving face on the column 55mm wide) One side extensively worn (rounded and smooth) but with traces of original angled faces of octagonal shaft, two of the remaining faces partly smoothed, two faces unsmoothed cut stone with diagonal tooling lines, heavier tooling marks across base and some hard white, sandy lime-based mortar surviving close to one edge. Note: damage to one face from recent	Not closely dated

TP	Ctxt	F/L no	F/L type	Find type	Period	Fabric	Form	Sherd type	No	Wt/g	EVE	Abr / brt	Comments	Finds spot date
													mechanical excavator bucket/tooth?	
2	0011	0025	Ditch (ditch fill)	CBM	Med+	OMS	PT		1	47			Piece of a peg-tile (PT), orange medium sandy fabric (10mm thick)	Med-post-med (commonly dating to after c. 14th century)
2	0012	0025	Ditch (ditch fill)	Animal bone					2	7			Sheep tooth, one other small bone piece	
2	0012	0025	Ditch (ditch fill)	(animal bone)									<b>Soil Sample 3</b> Animal bone (1 piece, 43g) cattle bone(?)	
2	0013	0025	Ditch (ditch fill)	Animal bone					8	3			Medium size mammal, end from a rib bone (initially recorded as one piece, now broken)	
2	0013	0025	Ditch (ditch fill)	(animal bone)									<b>Soil Sample 4</b> Animal bone: pieces of rib bone with some vertebra pieces some of which appear to have chopped ends (37 pieces weighing 43g)	
3	0016	0025	Ditch (ditch fill)	(misc)									<b>Soil Sample 1</b> CBM (1 piece, 2g); Animal bone, bird bone piece and bird(?) vertebra (2 pieces 1g)	Prob late med or later
3	0017	0025	Ditch (ditch fill)	(misc)									<b>Soil Sample 2</b> Peg tile (1 piece, 15g); Animal bone(?), whitened (1 piece, weight <1g); oyster shell, broken pieces (7 pieces, 13g)	Late med-p-med/E mod



## APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE

Table 3 Remains recovered from sample flots and non-floating residues

SS no	Context no	Feature/cut no	Feature type	Approx date of deposit	Flot contents
1	0016	0025	ditch	Med	charred cereal grains # legumes # charcoal + un-charred seeds #
2	0017	0025	ditch	Med	charred cereal grains # charcoal + ?fish bone frags # un-charred seeds # ferrous spheroids #
3	0012	0025	ditch	Med	charred cereal grains # charcoal ++ un-charred seeds ++ ferrous spheroids # col fragments #
4	0013	0025	ditch	Med	charred cereal grains ## legumes # nutshell fragment # charred seeds # charcoal ++ uncharred seeds ##

For the purpose of this initial assessment, items such as seeds, cereal grains and small animal bones have been scanned and recorded quantitatively according to the following categories: # = 1-10, ## = 11-50, ### = 51+ specimens.

Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance: + = *rare*, ++ = *moderate*, +++ = *abundant*.

Table 2 Monolith sample 1


Monolith	Context	Unit	Depth [m]	Description
	0010	1	0-0.25	<p>10YR 3/3 dark brown, sandy silty loam. Homogenous, massive structure without pores. Very slightly stony (&lt;1%), angular flint (c. 100mm in size) and rounded chalk granules (1 to 2mm in size). Very few charcoal granules (1%). Patches of 10YR 3/2 very dark grey brown sandy silt, possible bioturbations. Moderately cohesive.</p>

Table 3 Monolith sample 2


Monolith	Context	Unit	Depth [m]	Description
	0010	1	0-0.19	0.10m overlap with monolith sample <1>. 10YR 3/3 dark brown, sandy silty loam. Homogenous, massive structure without pores. Very slightly stony rounded chalk granules (1 to 2mm in size). Patches of 10YR 3/2 very dark grey brown sandy silt. Moderately cohesive. Diffuse boundary to:
	0011 <i>Pollen sample 4</i>	2	0.19-0.25	10YR 3/4 dark yellowish brown, silty sand (very fine sand to fine). Homogenous massive structure. Very slightly stony (1%) chalk granules (<2mm). Very few charcoal granules (2mm). Weakly cohesive.

Table 4 Monolith sample 3


Monolith	Context	Unit	Depth [m]	Description
	0011	2	0-0.17	0.10m overlap with monolith sample <2>. 10YR 3/4 dark yellowish brown, silty sand (very fine sand to fine). Homogenous massive structure. Very slightly stony (1%) chalk granules (<2mm). Very few charcoal granules (2mm). Patches of 10YR 3/2 very dark grey brown sandy silt, possible bioturbations. Weakly cohesive. Diffuse to:
	0012	3	0.17-0.25	10YR 3/3 dark brown, silty sand. Homogenous, massive structure, stoneless. Very few (<2%) 2.5YR 3/3 dark reddish brown iron oxide accumulations (<3mm). Vert few (2%) charcoal granules. Weakly cohesive.



Table 5 Monolith sample 4



Monolith	Context	Unit	Depth [m]	Description
	0011	2	0-0.16	<p>0.10m overlap with sample &lt;3&gt;. 10YR 3/4 dark yellowish brown, silty sand (very fine sand to fine). Homogenous massive structure. Very slightly stony (1%) rounded chalk granules (&lt;2mm) and subangular to angular flints (200m). Very few charcoal granules (2mm). Bone fragment at 0.12m. Common (10%) 2.5YR 3/4 dark reddish brown iron oxide accumulations (&lt;2mm). Weakly cohesive. Diffuse to:</p>
	<i>Pollen sample 3</i>			
	0012	3	0.16-0.22	<p>10YR 4/3 brown silty sand (very fine to fine). Very slightly stony (1%) rounded chalk (100mm), subangular to angular medium pebbles. Few (5%) 5YR 3/3 dark reddish brown iron oxides accumulations. Very few (&lt;1%) charcoal flecks. Weakly cohesive Diffuse to:</p>
<i>Pollen sample 2</i>				
	0013	4	0.22-0.25	<p>10YR 4/4 dark yellowish brown silty sand (very fine to fine) with patches of 10YR 6/3 pale brown very fine to medium loose sand. Stoneless.</p>

Table 6 Monolith sample 5

Monolith	Context	Unit	Depth [m]	Description
	0012	3	0-0.06	0.10m overlap with sample <4>. 10YR 4/3 brown silty sand (very fine to medium). Very slightly stony (1%) rounded chalk (100mm). Very few (1%) 5YR 3/3 dark reddish brown iron oxides. Weakly cohesive Diffuse to:
	0013	4	0.16-0.25	<p>10YR 4/4 dark yellowish brown silty sand (very fine to fine). Few (5%) 5YR 3/3 dark reddish brown Fe/Mn oxides accumulations. Very few (&lt;1%) charcoal flecks. Weakly cohesive.</p> <p>Between 0.10 and 0.14m band of 10YR 6/3 pale brown very fine to medium loose sand with embedded mineralized burnt wood fragment.</p> <p>Between 0.17-0.21 band of well sorted rounded to subrounded coarse sand to very coarse sand with very few (1%) subangular to subrounded pebbles (5 to 120mm). Fragments of bivalve shells.</p> <p>Between 0.22 and 0.24 band of 5Y 5/4 light</p>
	<i>Pollen sample 1</i>			

				olive brown fine to medium loose sand.
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**APPENDIX D: LEVELS OF PRINCIPAL DEPOSITS**

	Test Pit 1	Test Pit 2	Test Pit 3	Test Pit 4
Current ground level	9.27m	8.70m	8.80m	c.9.00m
	metres Above Ordnance Datum (AOD)			
Top of ditch fill	1.81m (7.46m)	1.65mm (7.05m)	1.00m (7.80m)	1.00m (c.8.00m)
	Upper figures are depth below ground level; lower figures in parentheses are metres AOD.			

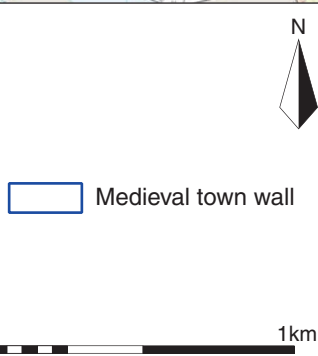
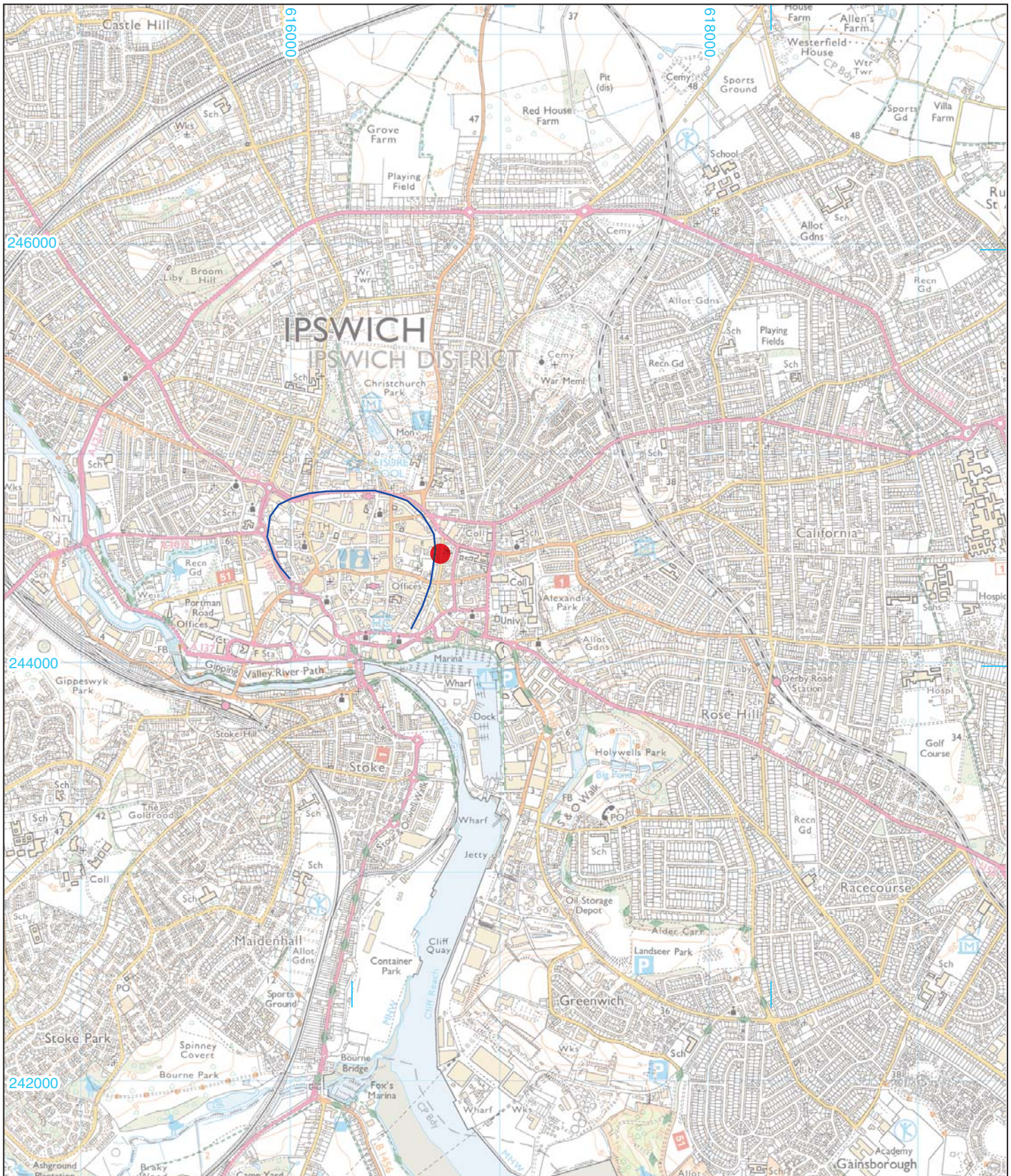


## APPENDIX E: OASIS REPORT FORM

<b>OASIS ID: suffolka1-354033</b>	
<b>Project details</b>	
Project name	34-56, Upper Orwell Street, Ipswich
Short description of the project	Excavation of four test pits exposed a deposit of dense sand and silt that extended to depths in excess of 3m. This was interpreted as a fill within the medieval town ditch that is known from documentary evidence to run through the site. Neither edge or the base of the ditch was encountered.
Project dates	Start: 29-04-2019 End: 05-06-2019
Previous/future work	Yes / Not known
Any associated project reference codes	IPS2070 - Sitecode
Any associated project reference codes	IP/16/01179/FUL - Planning Application No.
Type of project	Field evaluation
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	DITCH Uncertain
Significant Finds	POTTERY Medieval
Methods & techniques	"Test Pits"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Pre-application
<b>Project location</b>	
Country	England
Site location	SUFFOLK IPSWICH IPSWICH 34-56, Upper Orwell Street
Study area	0.06 Hectares
Site coordinates	TM 1670 4445 52.05544693374 1.161177603618 52 03 19 N 001 09 40 E Point
<b>Project creators</b>	
Name of Organisation	Cotswold Archaeology
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Suffolk Archaeology CIC
Project director/manager	Stuart Boulter
Project supervisor	Mark Sommers
Type of sponsor/funding body	Developer
<b>Project archives</b>	
Physical Archive recipient	Suffolk HER
Physical Archive ID	IPS2070
Physical Contents	"Animal Bones", "Ceramics"
Digital Archive recipient	Suffolk HER
Digital Archive ID	IPS2070
Digital Contents	"other"
Digital Media available	"GIS", "Text", "Images raster / digital photography"
Paper Archive recipient	Suffolk HER
Paper Archive ID	IPS2070
Paper Contents	"other"
Paper Media available	"Notebook - Excavation', ' Research', ' General Notes', 'Report', 'Section"
<b>Project bibliography</b>	
Publication type	Grey literature (unpublished document/manuscript)

Title	Archaeological Evaluation Report: 34-56, Upper Orwell Street, Ipswich, Suffolk
Author(s)/Editor(s)	Sommers, M.
Other bibliographic details	2019-038
Date	2019
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PROJECT TITLE  
**Upper Orwell Street, Ipswich, Suffolk**

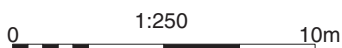
FIGURE TITLE  
**Site location plan**

DRAWN BY	EC	PROJECT NO.	IPS2070	FIGURE NO.
CHECKED BY	DJB	DATE	23/05/2019	<b>1</b>
APPROVED BY	MS	SCALE@A4	1:25,000	





- Site boundary
- Test pit
- Wall
- Surface



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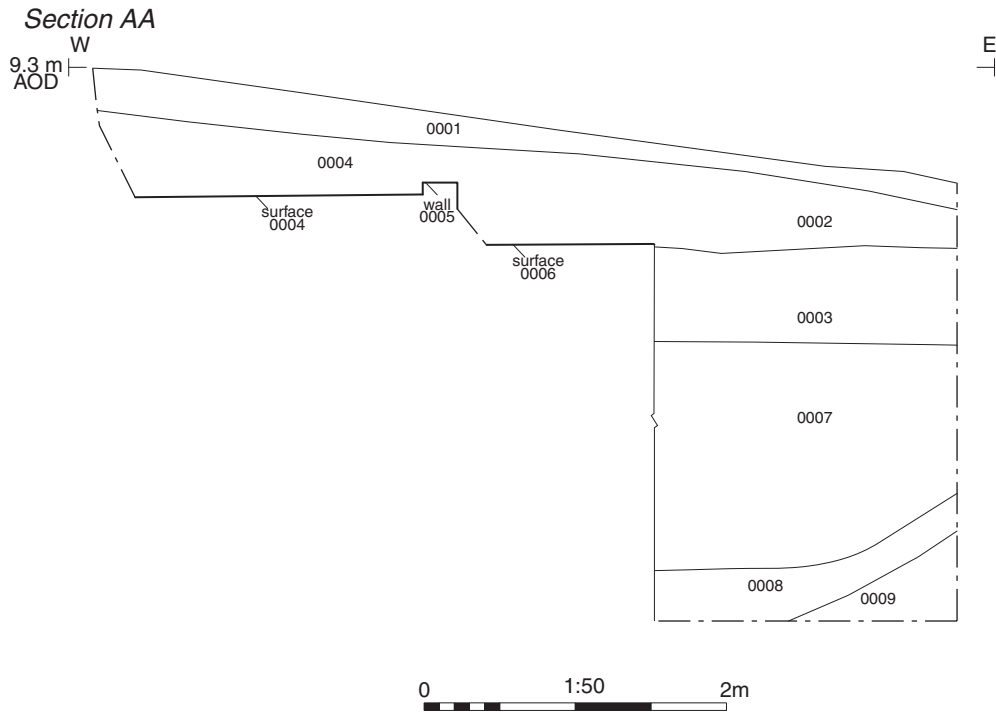
FIGURE TITLE

Test pit/location/site plan

DRAWN BY EC PROJECT NO. IPS270  
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FIGURE NO.

2



Test pit 1, east face (2m scale)



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PROJECT TITLE

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FIGURE TITLE

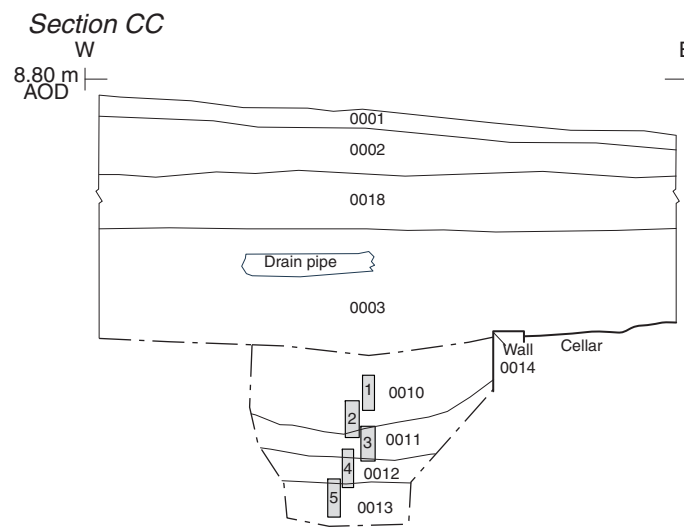
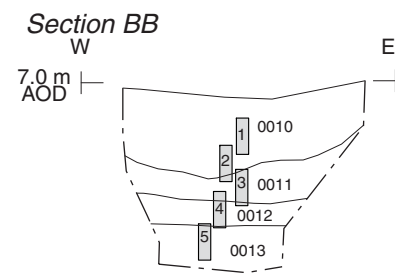
**Reconstructed test pit section and photograph from test pit 1**

DRAWN BY EC PROJECT NO. IPS2070  
 CHECKED BY DJB DATE 23/05/2019  
 APPROVED BY MS SCALE@A4 1:50

FIGURE NO.

**3**





Monoliths



Test pit 2, monolith sample (1m scale)



Test pit 2, north face (3m scales)

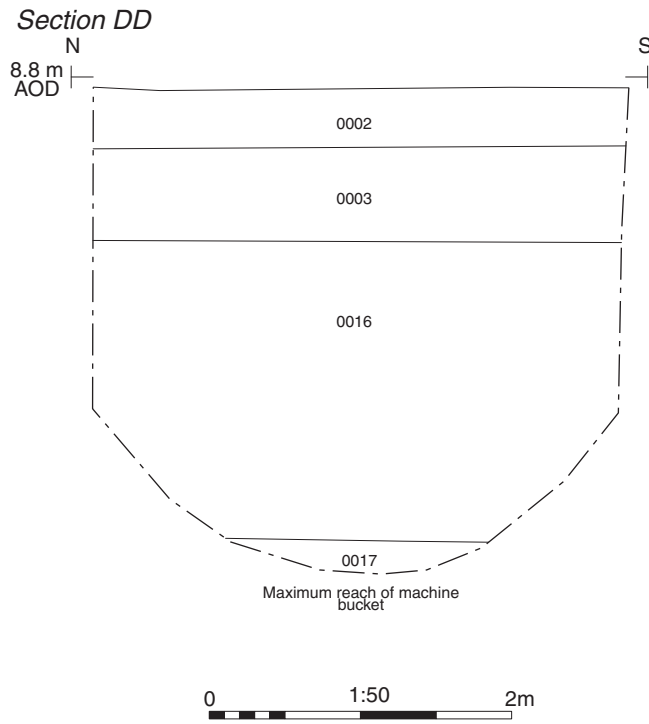
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FIGURE TITLE  
 Reconstructed sections and photographs from test pit 2

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Test pit 3, east face (3m scale)



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FIGURE TITLE

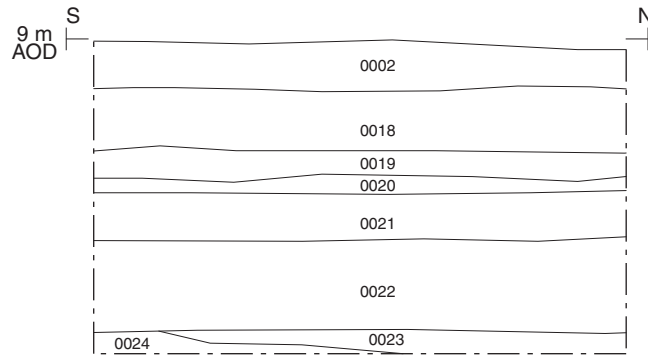
**Reconstructed test pit section and  
 photograph from test pit 3**

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FIGURE NO.

**5**

Section EE



Test pit 4, west face (2m scale)



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FIGURE TITLE

Reconstructed test pit section and photograph from test pit 4

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FIGURE NO.

6



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