

Alphington Road Exeter, Devon

Archaeological Evaluation and Watching Brief Report





**ALPHINGTON ROAD,
EXETER, DEVON**

Archaeological Evaluation and Watching Brief Report

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**ALPHINGTON ROAD,
EXETER, DEVON**

Archaeological Evaluation and Watching Brief

Summary

Wessex Archaeology was commissioned to undertake an archaeological evaluation and watching brief on land to the east of Alphington Road, Exeter (hereafter the Site) centred on National Grid Reference (NGR) 291623, 090723. Planning permission (09/0629/01) has been granted by Exeter City Council for the extension to the existing Sainsbury's store and associated works subject to the completion of a S106 Legal Agreement and on condition that a programme of archaeological work was undertaken.

During the construction of the Sainsbury's store positioned to the north of the Site a programme of palaeoenvironmental sampling was undertaken by Exeter Archaeology in 1998. A series of silted early river channels (palaeochannels) were identified within the foundation trenches and other deep excavations in the northern half of the Site. The palaeochannels ran approximately east to west under the store and the car park to the south. Radiocarbon dates obtained for three of these channels, suggested a date of between 795 and 390 BC.

Following consultation with the Exeter City Council Archaeology Officer a Written Scheme of Investigation was prepared that detailed the methodology for an archaeological evaluation and watching brief. The Site is positioned on the western edge of the floodplain of the River Exe and the investigation aimed to provide further information regarding the series of palaeochannels identified during the earlier archaeological survey on the Site and inform the nature of the archaeological resource.

Three machine excavated trial trenches were investigated as part of the evaluation. Neither the evaluation nor the watching brief identified any archaeological activity, although the evaluation did confirm the extension to the east of one of the palaeochannels identified in the earlier excavations.

Radiocarbon dating obtained from a timber taken from the one of the channel deposits confirmed a Late Bronze Age/Early Iron Age date and is consistent with radiocarbon dates obtained in the earlier excavations. A deeply stratified alluvial sequence was also noted in each trench and is unsurprising given each trench was positioned within the floodplain. Monitoring of deep groundworks in the area immediately to the west of the existing store confirmed the results from the earlier excavations; identifying this area as a gravel spur between two palaeochannels.

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The report was researched and compiled by Jon Millward and Naomi Hall. The evaluation was directed by Jon Millward with the assistance of Darryl Freer. The watching brief was undertaken by Naomi Hall and Vasilis Tsamis. The environmental samples were processed by Darren Baker. The waterlogged samples were assessed by Dr Chris J. Stevens. Soils and sediments (including sampling for micro-fossils) were assessed by David Norcott. Pollen assessment was carried out by Dr Michael Grant, with pollen slide preparation provided by AFESS, University of Reading. The identification of the wood for radiocarbon dating was provided by Dr Cathie Barnett with dating by the Scottish Universities Environmental Research Centre, East Kilbride (SUERC). Illustrations were prepared by Kenneth Lymer. The project was managed by Sue Farr on behalf of Wessex Archaeology.

ALPHINGTON ROAD, EXETER, DEVON

Archaeological Evaluation and Watching Brief Report

1 INTRODUCTION

1.1 Project Background

1.1.1 Wessex Archaeology (WA) was commissioned by WYG Planning and Design (the Client), to undertake an archaeological evaluation and watching brief, in advance of and during development at land off Alphington Road, Exeter (**Figure 1**), centred on NGR 291623, 090723 (hereafter 'the Site').

1.1.2 An application (09/0629/01) had been submitted to Exeter City Council (ECC) for the extension to the existing Sainsbury's store, re-arrangement and provision of additional car parking, alterations to the road layout, provision of a new link road to connect Alphington Road to Marsh Green Road, provision of replacement and enhanced landscaping, building to provide business/light industrial/retail warehousing and pedestrian and vehicular access to the highway. The council had given a resolution to approve subject to the completion of a S106 Legal Agreement.

1.1.3 Following consultation with the Exeter City Council (ECC) Archaeology Officer an archaeological brief (ECC 2009) requiring evaluation and watching brief was supplied. The investigation aimed to provide further information regarding a series of palaeochannels identified during an earlier archaeological survey (Exeter Archaeology 1999) and inform the nature of the archaeological resource on the Site.

1.1.4 A Written Scheme of Investigation (WSI) detailing the evaluation and watching brief methodology was prepared by Wessex Archaeology (WA, 2009). The WSI detailed the strategy, methodology and standards to be employed and was in keeping with the relevant standards and guidance of the Institute for Archaeologists. It was submitted to and approved by the Archaeology Officer at ECC before the commencement of fieldwork.

1.2 Scope of Document

1.2.1 This document presents the results of the archaeological evaluation and watching brief which are discussed in relation to the project aims.

2 THE SITE, LOCATION AND GEOLOGY

2.1.1 The Site is positioned on the western edge of the floodplain of the River Exe, towards the south-western edge of the Exeter urban area at the southern end of Alphington Road. It is bounded to the east by Grace Road, to the north by an industrial estate and to the south by residential houses.

- 2.1.2 The Site is generally flat lying at an average height of 6m above Ordnance Datum (aOD).

3 ARCHAEOLOGICAL BACKGROUND

3.1 Introduction

- 3.1.1 A brief search for archaeological and historical sites within a 1.5km radius ('the Study Area') of the Site via the Archaeology Data Service website <http://ads.ahds.ac.uk/catalogue/search/map.cfm>) indicates the presence of 26 sites, predominantly of a medieval and post-medieval date.

3.2 Background

- 3.2.1 A programme of palaeoenvironmental sampling was undertaken during the construction of the Sainsbury's store immediately to the north of the Site by Exeter Archaeology in 1998 (Exeter Archaeology 1999). A series of silted early river channels (palaeochannels) were identified within the foundation trenches and other deep excavations in the northern half of the Site. The palaeochannels ran approximately east to west under the store and the car park to the south. Radiocarbon dates obtained for three of these channels, suggested a date of between 795 and 390 BC.
- 3.2.2 Previous archaeological investigations undertaken by Exeter Archaeology elsewhere within the floodplain have identified thick sequences of alluvial silt deposits overlying river gravels. A sherd of 1st century pottery was recorded from the Water Lane investigations (Exeter Archaeology 1998a) and at Willeys Avenue, a palaeochannel was recorded (Exeter Archaeology 1998b).
- 3.2.3 Alphington Road is thought to lie on or near the alignment of a Roman road running south-west from the city and earlier legionary fortress, and although no evidence of the road was observed during construction, the area may have been truncated during the 1950s development of the Site.

4 AIMS

- 4.1.1 The archaeological field evaluation aimed to:
- clarify the presence/absence and extent of any buried archaeological remains within the Site that may be threatened by development.
 - identify, within the constraints of the evaluation, the date, character, condition and depth of any surviving remains within the Site.
 - assess the degree of existing impacts to sub-surface horizons and document the extent of archaeological survival of buried deposits.
 - identify and record the extent and alignment of the braided palaeochannels previously identified to the north of the Site
 - identify and record any significant remains or deposits within the channels, and also on the intervening gravel "islands"

- identify and record any remains of the Roman road thought to cross the flood plain in this area
- compile an indexed archive of the Site records, finds and reports
- produce a report which will present the project information in sufficient detail to allow interpretation without recourse to the project archive.

4.1.2 The watching brief aimed to:

- record any evidence of palaeochannels and the alluvial sequence exposed in drainage channels dug to the north-west of the evaluation trenches.
- monitor deep groundworks in the area immediately to the west of the present store where the new store extension will be situated. The results from these excavations should be related to the 1998 excavations for the existing building.

5 METHODOLOGY

5.1 Introduction

- 5.1.1 All fieldwork was conducted in compliance with the methodology set out in the WSI (Wessex Archaeology, 2009) and standards set out on the Institute for Archaeologist's *Standard and Guidance for Archaeological Evaluations* (revised 2008).

5.2 Evaluation

- 5.2.1 The evaluation comprised the excavation of 3 trial trenches (numbered 1-3) each measuring 30m in length and 1.8m wide and positioned within the proposed link road footprint (**Figure 1**).
- 5.2.2 Prior to machine excavation, the trench locations were scanned by Wessex Archaeology using a cable tracing device. No underground services were present within the footprint of the trial trenches although, following consultation with the ECC Archaeology Officer, Trench 2 was extended northwards to avoid a large drain.
- 5.2.3 The trenches were excavated by a 360° mechanical excavator with a toothless bucket and under constant archaeological supervision. Excavation exceeding 1.2m below the ground surface was only undertaken at the ends of the trenches and was stepped in compliance with Health and Safety regulations.
- 5.2.4 In each trench the depositional sequence was hand cleaned and recorded using Wessex Archaeology's *pro forma* recording system. This included the production of a photographic record comprising monochrome prints and colour transparencies. Digital images were also taken to support general site recording.
- 5.2.5 All archaeological groundworks were surveyed and tied into the Ordnance Survey National Grid using GPS surveying equipment.

5.3 Watching Brief

- 5.3.1 A watching brief was carried out from the 6th - 13th April 2010 on works in three distinct areas of the Site.
- 5.3.2 Area 1 was positioned to the south-east of the existing store and immediately to the north-west of the evaluation trenches. Monitoring in this area consisted of the excavation of a number of service trenches for drainage as well as the footings for a retaining wall.
- 5.3.3 Area 2 was positioned to the south-west of Area 1, east of Alphington Road and Area 3 was located immediately west of the existing store.
- 5.3.4 Monitoring in this area consisted of the excavation of a number of service trenches for drainage as well as the footings for a retaining wall.
- 5.3.5 A mechanical excavator fitted with a toothless ditching bucket was used during the excavations and monitored by at least one experienced archaeologist.
- 5.3.6 Excavated material was visually examined for archaeological material.

5.4 Health and Safety

- 5.4.1 All work was carried out in accordance with Health and Safety at Work etc. Act 1974 and the Management of Health and Safety regulations 1992 and all other relevant Health and Safety legislation and regulations and codes of practice in force at the time.
- 5.4.2 Prior to the commencement of the fieldwork a Risk Assessment was produced. All staff involved in works signed and complied with this document.

6 RESULTS

6.1 Evaluation

- 6.1.1 Trench and contextual information is contained in **Appendix 1**. The evaluation trenches are displayed on **Figure 2**.
- 6.1.2 No evidence of anthropogenic activity pre-dating modern landscaping and hard standing was found in the evaluation trenches. The results do however provide a record of local post-glacial land formation and palaeochannel activity.

Trench 1

- 6.1.3 River terrace gravel was encountered at 4.15m aOD at the south-west end of the Trench 1 and 4.18m aOD at the north-east end, and measured c. 1.37m below the ground surface. This gravel may relate to a Pleistocene deposit or a deposit dating to the Holocene period.
- 6.1.4 Above the gravel active channel deposits were identified. At the south-west end of the trench these comprised a 0.03m deep blue grey clay (**106**),

overlain by a 0.19m thick silty sand (**105**), above which another blue grey clay 0.06m deep (**104**) (**Figure 2, Plate 1**) was recorded. At the north-east end of the trench deposits **104** and **106** could not be discerned. The silty sand deposit **105** was present at greater depths (up to 0.42m). All of these deposits contained preserved organic components with pieces of wood (unworked) up to the size of branches (**Figure 2, Plate 2**).

- 6.1.5 Above the channel deposits and below the topsoil was alluvial clay representing a succession of flooding events. Variations in the colour of this clay were due to both oxidation and varying levels of groundwater.

Trench 2

- 6.1.6 A modern drain running the length of the trench from east to west obscured the majority of Trench 2 and following consultation with the ECC Archaeology Officer, the trench was extended northwards at each end to confirm the alluvial sequence.
- 6.1.7 Trench 2 contained river gravels at 4.82m aOD at the westernmost end of the trench and 4.01m aOD at the eastern end (1.15m and 1.78m below the current ground surface). In the east end of the trench the surface of the gravel was undulating, sloping gradually downwards towards the south. (**Figure 3, Plate 3**).
- 6.1.8 A sequence of alluvium overlay the gravel deposits and measured approximately 0.8m in depth at the western end of the trench and 0.95m in depth at the easternmost end. In both areas the top of the alluvium had been reworked through soil development processes into distinct 'A' and 'B' horizons (**200/201**).
- 6.1.9 The surface deposit at the east end of Trench 2 comprised made ground derived mainly from redeposited subsoil (**202**).

Trench 3

- 6.1.10 Trench 3 was positioned within an area formerly used as a car park and the upper layer comprised 0.2m of tarmac. River gravels existed at 4.7m aOD at the western end of the trench and 4.56m aOD at the east end measuring between 1.25m and 1.55m from the ground surface respectively. The gravel was capped by alluvial clay.

6.2 Watching Brief

Area 1

- 6.2.1 Observations in Area 1 were consistent with the upper stratigraphy encountered in Trench 1, and predominantly consisted of a mid orange alluvial clay. Slight variations were noted in the north-west corner of the area, where a poorly sorted gravel was noted and was similar in appearance to the upper gravels encountered in Area 3. Towards the south-west part of this area the mid orange alluvial clay was replaced by a pale grey-green clay, also of alluvial origin. Monitoring during the construction of the road in Area 1 also confirmed the excavations were still within the overlying alluvial clays.

- 6.2.2 A deeper service trench dug on a west–east alignment was over 3.0m in depth (**Figure 4 Plates 5**). At 1.99m below ground level (bgl) a mid grey-brown sandy clay (**708**) was encountered and was similar to palaeochannel deposits observed in Trench 1 of the evaluation. This overlay a further channel deposit (**709**) comprising a dark brown clay (at 2.25m bgl) above the river terrace gravel (**710**, 2.40m+ bgl).

Area 2

- 6.2.3 A service trench was excavated by machine under archaeological conditions in the centre of the entrance road in Area 2. Although extending nearly 2m below current ground level no traces of any palaeochannels were seen. The sequence comprised a series of alluvial clays overlying natural gravel deposits. A service run for street lighting immediately to the south was also monitored and although on the whole the trench was very shallow, where deeper areas (1.6m below current ground level) were excavated for lamp posts, a mid red-orange alluvium extended to a depth of 1.5m below ground level and overlay a pale grey-green clay similar to that seen in the south-west part of Area 1.

Area 3

- 6.2.4 In Area 3 a number of deeper excavations were monitored for the concrete pier bases for the new west wall and also a replacement pumping station pit. The excavations for the smaller pier bases did not exceed 1.3m below the reduction level (the ground was reduced by 0.4-0.5m before excavation) although were generally shallower. The larger pier bases were between 1.5-1.7m below the reduction level and encountered a more extensive stratigraphic sequence. Underlying between 1-1.5m of mid orange alluvial clay a thin layer of pale grey brown clay was recorded and overlay a band of mid orange gravel. Several bands of dark grey-black gravel (**Figure 5, Plate 5**) were recorded below this layer, which is consistent with this area being on the gravel spur identified in the 1998 excavations. In the most northerly of the larger pier bases a poorly sorted pale pink-grey gravel was encountered in two alternating bands within the mid orange alluvium; this gravel was identical to that observed in the north-west part of Area 1.
- 6.2.5 Despite reaching a depth of almost 5m the new replacement pumping pit did not encounter any obvious palaeochannel deposits. Unlike the original pumping station pit which recorded a mid grey silt clay at 1.8m beneath the reduced ground level (Exeter Archaeology 1999, 3), in the replacement pit a mottled red-brown alluvial clay was found beneath the mid orange alluvial clay at a depth of 1.68-2.06m bgl (**Figure 5, Plate 6**). The natural river gravels were reached at a depth of 2.06m bgl.

7 PALAEOENVIRONMENTAL EVIDENCE

7.1 Introduction

Environmental samples taken

- 7.1.1 A single monolith sample <2> was taken from a sedimentary sequence in an exposed section (1A) within Trench 1 (contexts **101-107**) and a returned radiocarbon date indicates the sequence is likely to be of Early Iron Age date (see section 7.6). A series of seven bulk samples were also taken from

alongside the monolith to assess for possible preservation of waterlogged material. A sample of wood was also taken from context (105), sample <9>. A further sample was taken within Trench 2 from a possible buried soil within alluvial layers (section 2B).

- 7.1.2 Initially the samples were only processed for waterlogged plant remains, and rapidly assessed during this process for the preservation of waterlogged plant, insect and mollusc remains in order to inform on the processing of the remainder of the samples.

7.2 Waterlogged plant remains

- 7.2.1 Subsamples of 1 litre were taken from all of the bulk samples from these features and processed for the recovery of waterlogged remains. Laboratory flotation was undertaken with flots retained on a 0.25mm mesh and residues on a 0.5mm mesh.
- 7.2.2 For those samples that contained waterlogged material, residues and flots were stored in sealed containers with Industrial Methylated Spirits (IMS). The larger fraction (>5.6mm) was sorted, weighed and discarded. For those samples that contained little to no waterlogged material the flots were dried out. The remaining flots were visually inspected under a x10 to x40 stereo-binocular microscope to determine the range of waterlogged material. Where waterlogged material was present, preliminary identifications of dominant taxa, were conducted and are presented below.
- 7.2.3 The samples generally had very little material other than fragments of degraded wood and occasional waterlogged seeds.
- 7.2.4 Waterlogged seeds were only present in the sample from context (104), although even here relatively few seeds were present. Seeds in this sample comprised those of disturbed ground fat-hen (*Chenopodium album*), many-seeded goosefoot (*C. polyspermum*), stitchwort (*Stellaria* sp.), and fumitory (*Fumaria* sp.), as well as wetlands, rush (*Juncus* sp.) and stems of probable common reed (*Phragmites australis*). The sample also had a number of seeds of elder (*Sambucus nigra*). Charcoal, a fragment of charred hazelnut shell (*Corylus avellana*) and some charred monocot (probably grasses sedges, and/or rushes) rootlets were also present. Worm cocoons in this deposit may indicate some soil material entering the deposit as the channel began to silt up.
- 7.2.5 The remainder of the samples had little to no waterlogged material within them, with only seeds of goosefoot (*Chenopodium* sp.), rush (*Juncus* sp.) and blinks, (*Montia fontanum* subsp. *chondrosperma*), and elder in both (105) and (106). That from (101) contained a few seeds of rush (*Juncus* sp.) within it, otherwise the only seeds were generally those of elder, present in context (107). It might be noted that seeds of elder appear more robust than many others and survive relatively well even in dried out sediments.
- 7.2.6 The single sample from Trench 2 also had very little material within it, comprising three seeds of elder (*Sambucus nigra*); the sample also had some degraded wood and small fragments of charcoal.

7.2.7 The waterlogged seeds provide only limited information on the environment during the deposition of the sediments from the Early Iron Age onwards. These seeds are generally of common weeds associated with human or animal disturbance and wet, nitrogen rich soils, perhaps relating to settlement given the presence of some charcoal, but perhaps more likely given the context, grazing animals. There is some indication also of either scrub or hedging in the form of seeds of elder.

7.2.8 **Table 1** Waterlogged material present in the sub-samples from monolith <2>, in Trench 1

Sample Number	Context	Processed	Comments on amount of waterlogged	Species Present
1	208	1 litre (dried)	Very little waterlogged material. – fine roots	Some small degraded wood fragments, 1-3 elder seeds. Small fragments of charcoal
2	101	1 litres (dried)	Modern? roots, very little waterlogged.	Some insect remains but may be modern. – a few <i>Juncus</i> sp.
4	103	1 litre (dried)	Modern roots, very little waterlogged.	Nothing. <i>C. polyspermum</i>
5	104	1 litre (wet) + bulk	Some waterlogged material.	<i>Chenopodium album</i> , rush, elder+++, and <i>Phragmites</i> stem. <i>Stellaria</i> , Some insect. <i>C. polyspermum</i> . <i>Fumaria</i> sp. Charred rootlets. charred hazelnut, Some charcoal. worm cocoon
6	105	1 litre (dried out bulk)	Very little waterlogged material.	Bit of elder and some seeds of <i>Chenopodium</i> . Some charcoal. <i>Montia fontum</i> , <i>Rubus</i> ,
7	106	1 litre (rest as bulk)	Some waterlogged.	Several fragments of waterlogged wood. <i>Chenopodium album</i> & <i>C. polyspermum</i> , seeds and <i>Montia fontanum</i> , <i>Juncus</i> sp., Some elder seeds. Worm cocoons. Several charcoal fragments and 1 charred <i>Rubus</i> type thorn and <i>Rumex</i> seed
8	107	1 litre	Very little waterlogged material. Gravel.	Some elder seeds.
10	102	1 litre	Very poor.	Nothing.

7.3 Charred plant remains and charcoal

7.3.1 A single charred fragment of charred hazelnut shell (*Corylus avellana*) and some charred monocot (probably grasses sedges, and/or rushes) rootlets were recovered from context (104). Charcoal was generally very sparse in the samples and only (104) had any remains over 2mm and even here, less than 2-3ml of material was present.

7.3.2 The rootlets are likely to represent the charring of local vegetation while the charred hazelnut may represent settlement waste or similar human activity.

7.4 Insect remains

- 7.4.1 Small amounts of insect remains were seen in contexts (102) and (104) and comprised a few fragments of wing-case.

7.5 Sediments

- 7.5.1 One monolith sample <2> was taken from a palaeochannel feature on Site.
- 7.5.2 The monolith was cleaned prior to recording and standard descriptions used, (following Hodgson 1997) including Munsell colour, texture, structure and nature of boundaries, as given below in Table 2.
- 7.5.3 The sampled sequence is composed of alluvial deposits laid down within a palaeochannel, most probably during the Early iron Age and later.
- 7.5.4 Broadly speaking the lower sequence represents an active phase of the channel, with fine gravel and sand accumulation bars interspersed with occasional fine sedimentation during periods of low flow rate. The sequence becomes finer up-profile, and shows the marginalisation and silting-up of the channel at this location (most likely due to channel migration), followed by the deposition of overbank flooding deposits in the post-channel environment.
- 7.5.5 It is very likely that the sequence is non-continuous; i.e. there is likely to be a significant gap between the Early Iron Age date from the active channel deposits of the basal sequence and the upper sequence. Any erosive boundaries or other indications of this will have been effectively erased by soil processes.
- 7.5.6 **Table 2** Alphington Road: Sediment descriptions and sub-samples taken

Feature:	n/a	Mono:	2	Comments: Base of Trench and context (107) is at 4.08m aOD.	
Level (top):	5.11m aOD	Drg:	1A		
Depth (m)	Pollen samples	Other samples	Context	Sediment description	Interpretation
0-0.10	-	-	101	10YR 5/3 brown clay loam, well defined iron staining and concretion around rootholes, c.2% area. Quite friable. Clear boundary.	Likely overbank flooding deposit
0.10-0.39	-	-	102	7.5YR 4/6 strong brown silty clay, strongly iron stained diffusely throughout (c.80% area). Vertical rootlets, manganese flecks. Clear boundary.	“ “

Feature:	n/a	Mono:	2	Comments: Base of Trench and context (107) is at 4.08m aOD.	
Level (top):	5.11m aOD	Drg:	1A		
Depth (m)	Pollen samples	Other samples	Context	Sediment description	Interpretation
0.39-0.63	-	-	103	7.5 YR brown clay loam. Vertical rootholes contain grey clay/clay loam. Becoming gritty to base. Clear boundary.	Silting up of channel
0.64-0.88	-	-	104	7.5YR 4/2 brown sand, loamy at top interface. Small fragments of waterlogged wood or root. Sand up to 4mm, poorly to quite well sorted. Sharp boundary.	Active channel deposit
0.88-0.90	-	-	106	10YR 4/2 dark greyish brown silt loam. Slippery, <i>possibly</i> organic but not very	Low energy alluvium
0.90-1.00	-	-	107	Very coarse sand to fine gravel, 1-5mm, occ to 10mm. Flat clasts horizontally bedded. Becoming sandier and gravellier from 0.95m	Active channel deposits coming down onto gravels

7.5.7 The sequence was not sub-sampled for pollen or other micro-fossils due to the reworked nature of the sediments and the very probably discontinuous nature of the sequence.

7.5.8 Another date could potentially be obtained from the material extracted from the bulk samples, but this would not be recommended. The lower sequence accumulated quite rapidly, and there is little doubt that the upper sequence is considerably later in date.

7.6 Dating

7.6.1 A single sample of waterlogged wood from a large branch lying towards the base of a palaeochannel at c. 4.18m aOD was submitted to the Scottish Universities Environmental Research Centre, East Kilbride (SUERC) for radiocarbon dating.

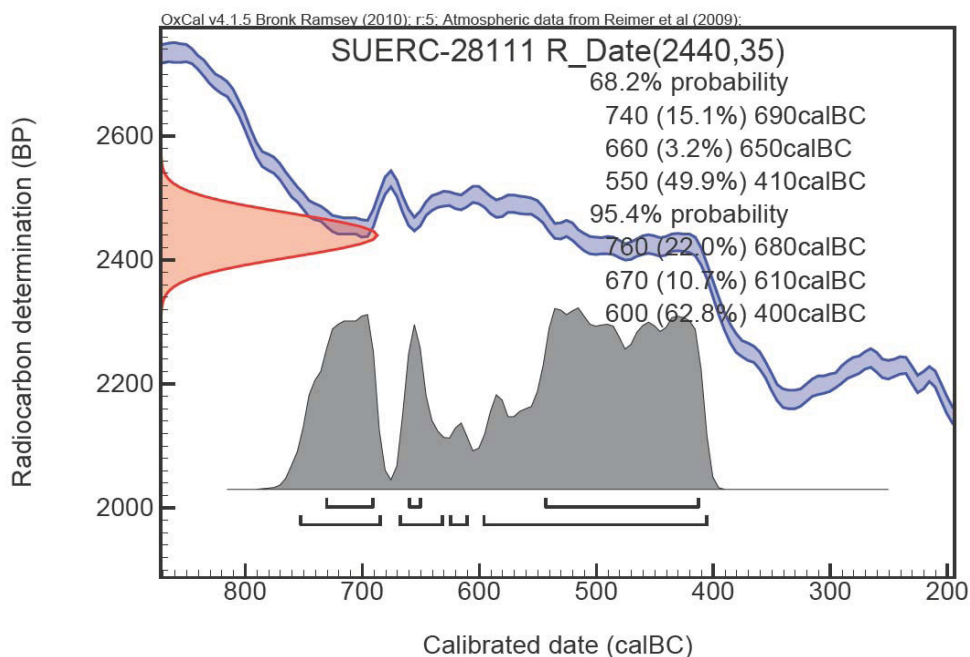
7.6.2 The sample was identified as deriving from oak (*Quercus* sp.) and the sample submitted came from the five outermost rings.

7.6.3 The returned radiocarbon determination (2440±35 BP, SUERC-28111) was calibrated within OxCal 4.1.5 (Bronk Ramsey 2001; 2009) using the IntCal09 calibration curve (Reimer *et. al.* 2009). The calibrated date places the material from the bottom of the palaeochannel to between 740-400 cal. BC which places the bulk of the distribution within the Early Iron Age although there is a possibility the date may fall at the end of the Late Bronze Age (Table 3).

7.6.4 **Table 3** Radiocarbon determination for an oak branch at the base of the palaeochannel from context 105.

Feature and context	Identification	Laboratory Code	$\delta^{13}\text{C}$	Date BP	Calibration BC (2 sig. 94.5%)
Palaeochannel (105) <9> at 4.18m aOD	Outer 5-rings of Quercus	SUERC-28111	-26.2‰	2440±35	740-400 BC

7.6.5 **Table 4** Probability distribution for date SUERC-28111



8 POTENTIAL & PROPOSALS

8.1 Charred plant remains and charcoal

- 8.1.1 Given the limited number of charred plant remains, and small size of the charcoal (less than 2mm), the charred plant remains and charcoal have little further potential and no further work is proposed.

8.2 Waterlogged plant remains

- 8.2.1 The waterlogged remains have the potential to inform on the local environment around the channel in the Iron Age or post-Iron Age period. However, given that only one sample contained waterlogged material and the limited number of seeds and species present in the sample, such potential is very limited and no further work is proposed.

8.3 Insect remains

- 8.3.1 Insect remains have the potential to inform on the local environment during the deposition of the sediments, potentially providing a broader picture of the wider environment beyond the channel edge than seen in the plant remains. However, the insect remains were only seen in low quantities in a single sample which limits such potential significantly and therefore no further work is proposed.

8.4 Pollen

- 8.4.1 The potential for pollen work is low. Although pollen will almost certainly be present in the sampled sequence, analysis here is not recommended given the reworked nature of the sediments and the discontinuous nature of the sequence.

8.5 Dating

- 8.5.1 Some material suitable for radiocarbon dating may have been extracted from the bulk samples, but further analysis is unlikely to add significantly to the results, given the similarity in returned results from the Sainsbury store (Exeter Archaeology, 1999) and the current Site. The lower sequence accumulated quite rapidly, and there is little doubt that the upper sequence is considerably later in date.

9 DISCUSSION

- 9.1.1 The results of the fieldwork have confirmed that the Site is positioned within the dynamic area of the floodplain and are consistent with earlier excavations undertaken in the immediate area (Exeter Archaeology 1999). No archaeological features were identified during the field evaluation or watching brief undertaken on the Site and whilst the limited deep excavations undertaken have confirmed the location of channel deposits in specific areas within the Site, their extents, dimensions and orientation could not be verified.
- 9.1.2 Trench 1 confirmed the extension to the east of one of the palaeochannels identified in the 1998 excavations (*ibid.*). A radiocarbon date obtained from a timber taken from the channel deposit (**105**) gave a Late Bronze Age/Early Iron Age date consistent with those obtained in the earlier excavations. A deep alluvial sequence was also seen in Trenches 2 and 3 reflective of the active floodplain however, no further evidence of palaeochannel deposits were identified within the evaluation.

9.1.3 The majority of the drainage trenches mechanically excavated during the watching brief in Area 1 did not extend beneath the upper alluvial sequence, with the exception of a deeper service trench which encountered possible palaeochannel deposits. These were deeper than those encountered in Trench 1 suggesting either that the Late Bronze Age/Early Iron Age ground may have inclined towards the west or the deeper service trench was positioned more centrally within the channel.

9.1.4 Monitoring of deep groundworks in the area immediately to the west of the existing store confirmed the results from the 1998 excavations (Exeter Archaeology 1999), identifying this area as a gravel spur between two palaeochannels.

10 RECOMMENDATIONS

10.1.1 No further work is recommended. The submission of this report to the DCC HER and the completion of an online OASIS form (Online Access to the Index of Archaeological Investigations) is considered to be an adequate level of publication.

11 ARCHIVE

11.1.1 The project archive was prepared in accordance with the guidelines outlined in Appendix 3 of *Management of Archaeological Projects* (English Heritage 1991) and in accordance with the *Guidelines for the preparation of excavation archives for long term storage* (UKIC 1990).

11.1.2 It comprises a ring-bound file containing the written records and a copy of the *Written Scheme of Investigation*. The project archive is currently held at the offices of Wessex Archaeology under the project code **73280**. The complete archive will be deposited with the Royal Albert Memorial Museum, Exeter no later than 4 months after the museum has reopened.

12 COPYRIGHT

12.1.1 This report may contain material that is non-Wessex Archaeology copyright (e.g. Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which we are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferrable by Wessex Archaeology. You are reminded that you remain bound by the conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of the report.

13 REFERENCES

13.1 Bibliography

Exeter Archaeology, 1998a, *Archaeological observation and recording at the former Exeter Castings site, Water Lane, Exeter*, unpublished client report ref 98.16

Exeter Archaeology, 1998b, *Archaeological evaluation, observation and recording at the former Smith's Meters site, Willeys Ave, Exeter*, unpublished client report ref 98.17

Exeter Archaeology, 1999, *Archaeological Recording During the Construction of a New J. Sainsbury Complex at Alphington Road, Exeter*, unpublished client report ref 99.81

Wessex Archaeology 2009, *Alphington Road, Exeter, Written Scheme of Investigation: Method Statement for an Archaeological Evaluation and Watching Brief. Report Reference: 73280.01*

APPENDIX 1 - TRENCH INFORMATION

TRENCH 1			
Length (m)	Width (m)	Max Depth (m)	Ground level (m OD)
30	1.8	1.8	5.95
Context	Description	Depth (m)	
100	Topsoil. Mid brown silty clay with rare fragments of modern CBM and fine – medium scale gravels.	0 – 0.42	
101	Alluvium. Light grey clay with orange mottling.	0.42 – 0.55	
102	Alluvium. Orange clay with manganese flecking.	0.42 – 1.38 0.55 – 0.77	
103	Alluvium. Very light brown clay with orange mottling.	0.77 – 1.09	
104	Channel deposit. Light grey-brown silty clay with preserved organic components.	1.09 – 1.15	
105	Channel deposit. Light grey-brown silty sand with preserved organic components.	1.15 – 1.37 1.38 – 1.8	
106	Channel deposit. Light grey-brown silty clay with preserved organic components.	1.37 – 1.41	
107	River terrace gavel.	141 - >1.46 1.8+	

TRENCH 2			
Length (m)	Width (m)	Max Depth (m)	Ground level (m OD)
43	1.8	2.15	6.15
Context	Description	Depth (m)	
200	Topsoil. Mid grey-brown silty loam with rare sub-rounded and sub angular stones.	0 – 0.1	
201	Subsoil. Light brown silty clay.	0.1 – 0.32 0.42 – 0.85	
202	Made ground. Redeposited soil mainly derived from subsoil.	0.1 – 0.42	
203	?Channel deposit. Mid grey-brown silty sand. Frequent 30-60mm sized sub-rounded stones. These are more concentrated towards the base of deposit.	0.7 – 1.15	
204	Alluvium. Light grey-brown clay.	0.85 – 0.99	
205	Alluvium. Orange-grey silty clay with manganese.	0.99 – 1.25	
206	Alluvium. Orange-grey silty clay.	1.25 – 1.35	
207	Alluvium. Sandy silt mid grey with orange mottling.	1.35 – 1.57	
208	Alluvium. Mid grey silty sand.	1.57 – 1.78	
209	River terrace gravel.	1.78 – >2.15 1.15+	

TRENCH 3			
Length (m)	Width (m)	Max Depth (m)	Ground level (m OD)
30	1.8	1.67	6.15
Context	Description		Depth (m)
300	Tarmac/scalplings.		0 – 0.2
301	Made ground. Mainly derived from surrounding top and subsoil.		0.1 – 0.52
302	Alluvium. Yellowish brown silty clay.		0.5 – 0.57
303	Alluvium. Orangey brown clay with manganese.		0.57 – 0.8 0.63 – 1.13
304	Alluvium. Grey/orange silty clay.		0.8 – 1 1.13 – 1.4
305	Alluvium. Mid grey sandy silt.		1 – 1.24 1.4 – 1.55
306	River terrace gravel.		1.55 – 1.67
307	Redeposited blue alluvial clay.		0.2 – 0.63

APPENDIX 2 – OASIS DATA COLLECTION FORM

13.2 OASIS ID: wessexar1-78355

Project details

Project name Alphington Road, Exeter

Short description of the project Wessex Archaeology was commissioned to undertake an archaeological evaluation and watching brief on land to the east of Alphington Road, Exeter. Three machine excavated trial trenches were investigated as part of the Phase 1 evaluation. Neither the evaluation nor the watching brief identified any archaeological activity, although the evaluation did confirm the extension to the east of one of the palaeochannels identified in earlier excavations. Radiocarbon dating obtained from a timber taken from the one of channel deposits confirmed a Late Bronze Age/Early Iron Age date consistent with those obtained in the earlier excavations.

Project dates Start: 25-01-2010 End: 30-07-2010

Previous/future work Yes / No

Any associated project reference codes 09/0629/01 - Planning Application No.

Any associated project reference codes 73280 - Contracting Unit No.

Type of project Field evaluation

Site status None

Current Land use Industry and Commerce 3 - Retailing

Monument type NONE None

Significant Finds NONE None

Methods techniques & 'Sample Trenches'

Development type Urban commercial (e.g. offices, shops, banks, etc.)

Position in the planning process After full determination (eg. As a condition)

Project location

Country England

Site location DEVON EXETER EXETER Alphington Road

Postcode EX2 8NH

Study area 57021.00 Square metres

Site coordinates SX 916 906 50.7043400891 -3.535276893830 50 42 15 N 003 32 07
W Point

Project creators

Name of Organisation Wessex Archaeology

Project originator brief Wessex Archaeology

Project design Wessex Archaeology
originator

Project Sue Farr
director/manager

Project supervisor Jonathan Milward

Type of Developer
sponsor/funding
body

Name of WYG Planning and Design
sponsor/funding
body

Project archives

Physical Archive Royal Albert Memorial Museum, Exeter
recipient

Physical Contents 'Environmental'

Digital Archive Royal Albert Memorial Museum, Exeter
recipient

Digital Contents 'other'

Digital Media 'Database','Spreadsheets','Survey','Text'
available

Paper Archive Royal Albert Memorial Museum, Exeter
recipient

Paper Contents 'other'

Paper Media 'Context
available sheet','Drawing','Microfilm','Photograph','Plan','Report','Section'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title Alphington Road, Exeter, Devon

Author(s)/Editor(s) Wessex Archaeology

Other bibliographic details Ref: 73280.03

Date 2010

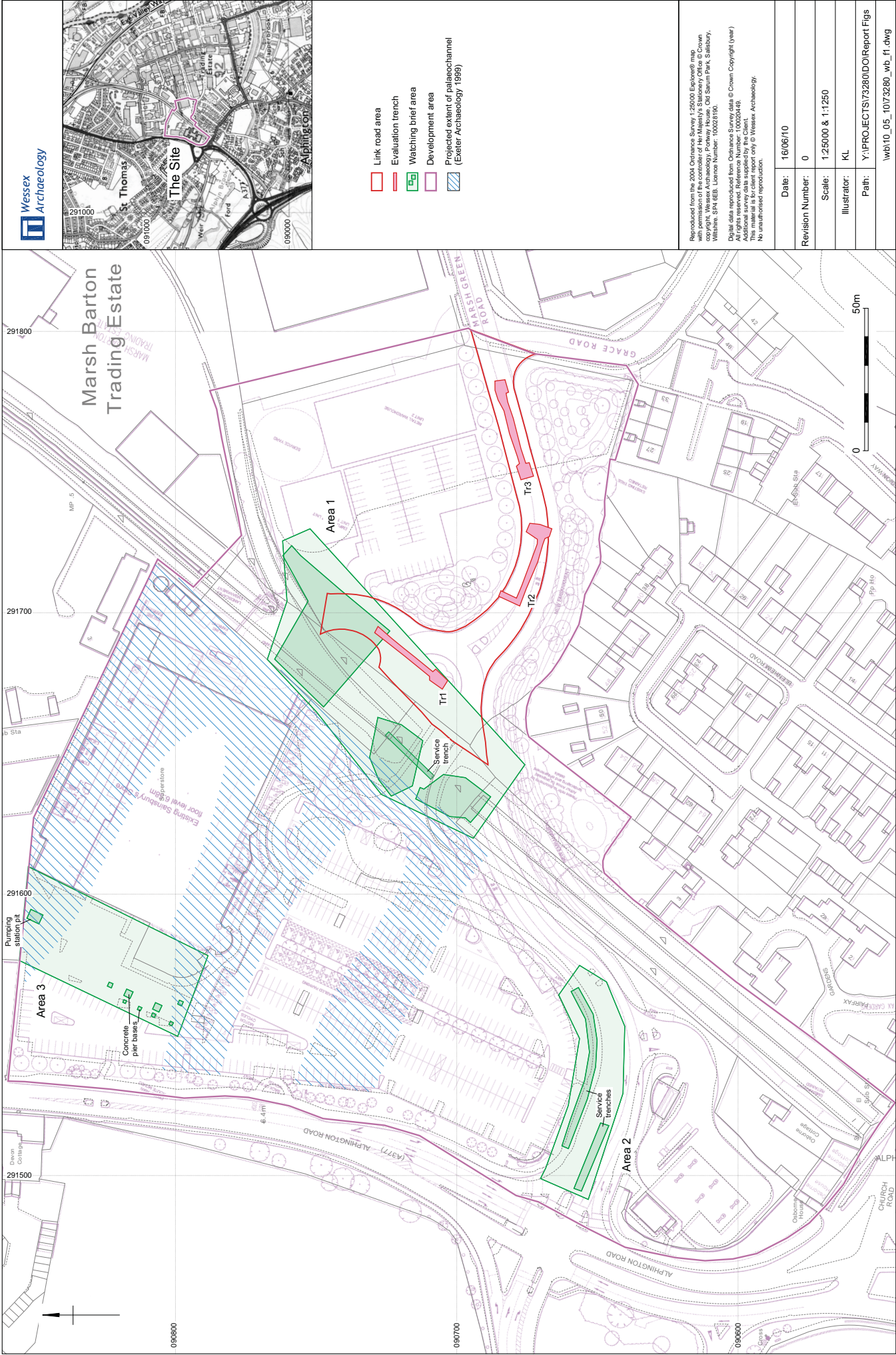
Issuer or publisher Wessex Archaeology

Place of issue or publication Wessex Archaeology

Description Grey literature (unpublished client report)

Entered by Sue Farr (s.farr@wessexarch.co.uk)

Entered on 16 June 2010



Site location showing evaluation and watching brief areas

Figure 1

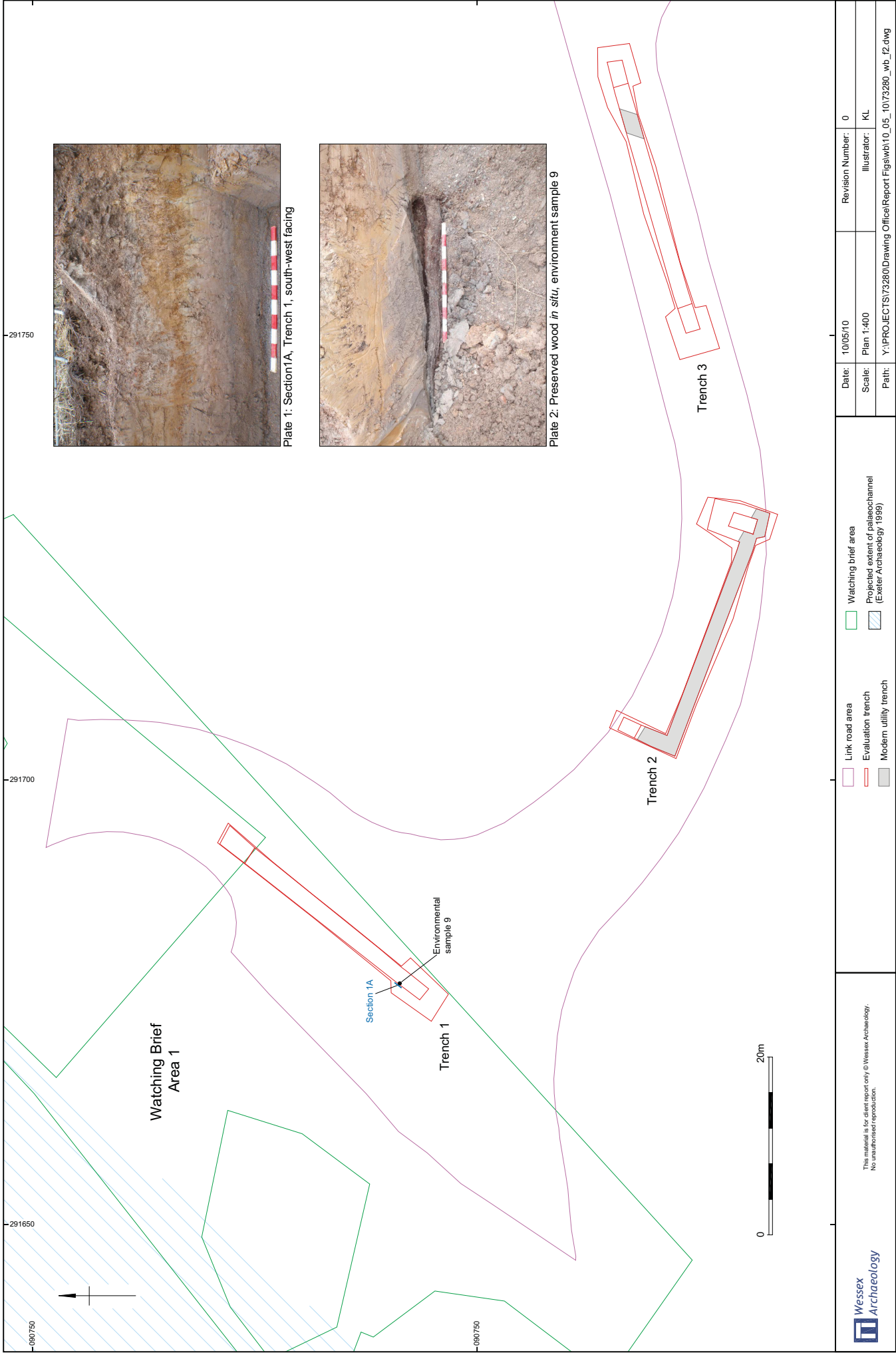
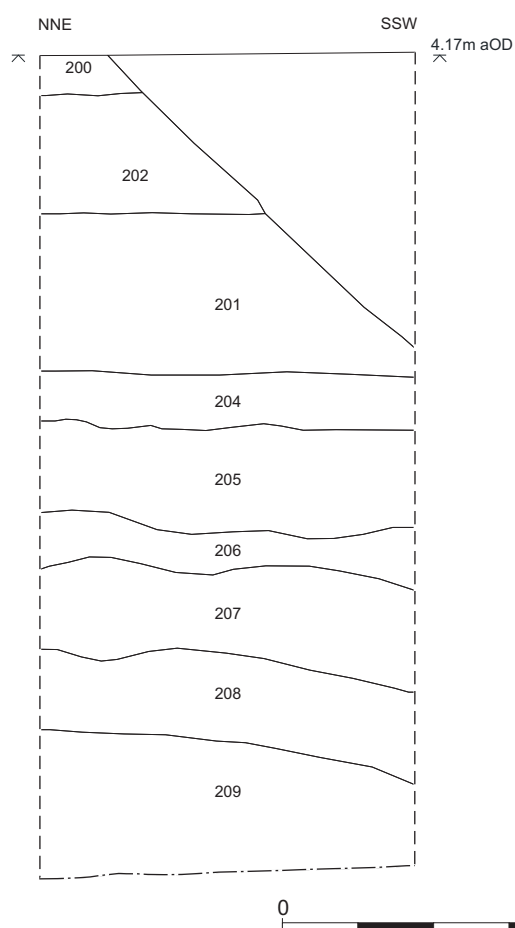


Figure 2



Plate 3: Section 2B, Trench 2, west-north-west facing



Section 2B, Trench 2


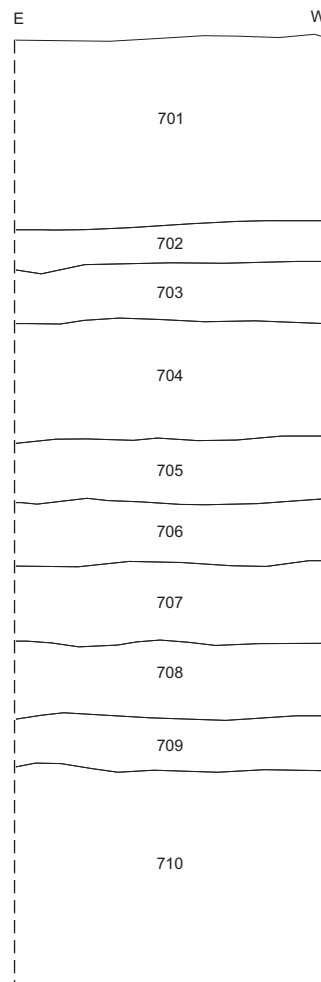
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Plate 4: Section of service trench, Area 1, north facing



Section of service trench, Area 1





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Plate 5: Excavation for concrete pier base, from south-west



Plate 6: Replacement pumping station pit, from west

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