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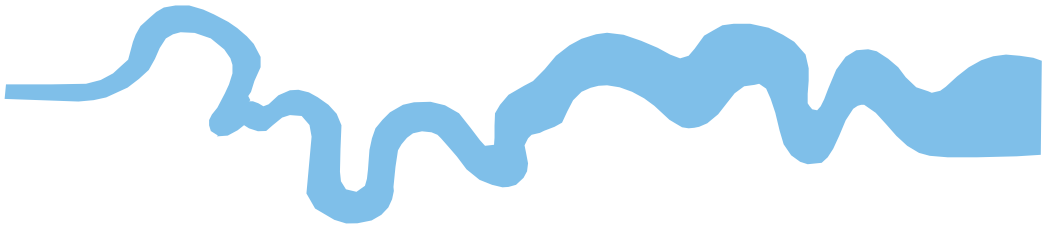

SOUTH

River Arun Tidal Defence Scheme, Arundel, West Sussex

Archaeological Watching Brief

by Sean Wallis

Site Code: ATD 19/176wb

(TQ 0171 0688)

River Arun Tidal Defence Scheme, Arundel, West Sussex

An Archaeological Watching Brief

For J T Mackley and Co Ltd

by Sean Wallis

TVAS South

Site Code ATD 19/176

August 2020

TVAS South, 77a Hollingdean Terrace, Brighton, East Sussex, BN1 7HB
Tel: 01273 554198; Email: south@tvas.co.uk; web site www.tvas.co.uk

Summary

Site name: River Arun Tidal Defence Scheme, Arundel, West Sussex

Grid reference: TQ 0171 0688

Site activity: Watching Brief

Date and duration of project: 18th November 2019 - 25th November 2019

Project manager: Steve Ford

Site supervisor: Sean Wallis

Site code: ATD 19/176

Summary of results: The archaeological watching brief for the Arun Tidal Defence Scheme comprised the monitoring of a series of pits dug against the existing river wall, on the opposite bank to the historic core of the town. The pits were excavated by hand to a depth of 0.50m, but only modern soil and concrete was recorded. Limited monitoring of augered boreholes within the hand dug pits established that the natural geology lay directly below modern deposits, which were approximately 1.1m thick. No archaeological finds or features were recorded.

Location and reference of archive: The archive is presently held at TVAS South, Brighton, and will be deposited with a suitable depository in due course.

Report edited/checked by:	Steve Ford✓ 28.08.20 Steve Preston✓ 28.08.20

River Arun Tidal Defence Scheme, West Sussex
An Archaeological Watching Brief

by Sean Wallis

Report 19/176b

Introduction

This report documents the results of an archaeological watching brief carried out on a section of the Arun river wall, at Arundel, West Sussex (TQ 0171 0688) (Figs. 1 and 2). The work was commissioned by Mr Paul White of Ecus Ltd, Unit 1 Woodlands Business Village, Coronation Road, Basingstoke, Hampshire, RG21 4JX, on behalf of J T Mackley and Co Ltd.

The Environment Agency commissioned a programme of improvement works for the Arun River Tidal Defence Scheme. It was originally planned to carry out work in six zones (1-6) along the river, but a decision was made to delay work in Zones 1 and 4. For the remaining zones (2, 3, 5 and 6), Zones 2 and 5 were considered to have heritage implications. A written scheme of investigation (WSI) was prepared by Royal HaskoningDHV in March 2019. The WSI required that an archaeological watching brief be carried out during the groundworks in Zone 5. It also stipulated that a programme of building recording be carried out in Zone 2, prior to a 93m long section of Steel Sheet Piling cantilever floodwall being installed. The latter work is detailed in a separate report.

This is in accordance with the Environment Agency's policies on the historic environment. The fieldwork was undertaken by Sean Wallis between 18th and 25th August 2019, and the site code is ATD 19/176. The archive is currently held at TVAS South, Brighton, and will be deposited with a suitable depository in due course.

Location, topography and geology

The site is located on the southern bank of the River Arun, opposite the historic core of Arundel. The area monitored during the watching brief was located immediately south of the existing river wall, in the gardens of a block of residential apartments (Holmes Foundation) which front onto Fitzalan Road (Fig. 2). The site is relatively flat, and lies at height of approximately 3m above Ordnance Datum. Unsurprisingly, the British Geological Survey records the underlying geology along the river as being Alluvium, but in the area where the project took place the River Arun cuts through an outcrop of Spetisbury Chalk Member, which overlies the Tarrant Chalk Member (BGS 1996).

Archaeological background

The town of Arundel is first mentioned in Domesday Book (1086), as *Harundel*, which probably means 'valley where the plant horehound grows'. As a result, the River Arun clearly takes its name from the town, and not vice versa (Mills 1993). It is likely that the castle was established in the second half of the 11th century, shortly after the Norman Conquest, to defend against shipborne attacks up the river. Undoubtedly the town developed around the castle, and it became an important port during the medieval period. It continued to flourish up until the Civil War, when the castle was besieged by a Parliamentarian army between 19th December 1643 and 6th January 1644. Some domestic buildings to the west and south of the castle were destroyed during the siege, and the castle itself was 'slighted' in 1653 following an order from Oliver Cromwell. Although the castle remained a ruin until restoration began by the Howard family in the late 18th century, the town grew from the mid 17th century onwards, and became a flourishing market town. The town continued to grow following the introduction of the railway in the 1860s, and has subsequently developed into a major tourist attraction.

The River Arun's floodplain was clearly wider in the distant past, as numerous embankments and flood defences have been built along its length, particularly where it passes through Arundel. Documentary sources suggest that flood defences, river improvement and land reclamation were issues as long ago as the 14th century, and a number of serious floods are recorded throughout the 15th to 20th centuries, which caused significant damage. It is therefore likely that flood defences would have been constructed throughout the town's history, and these enabled a number of quays and wharves to develop along both banks of the river during the 18th and 19th centuries. The area where the watching brief was carried out was not developed until the 20th century, and the Ordnance Survey from the late 1890's depicts a series of earthworks in the area now occupied by the Holmes Foundation houses. The earthen banks in the area around Arundel are difficult to date. Although historic maps indicate that they were extant by the late 19th century, as is the case with the present site, they could have potentially originated at any time from the medieval period onwards, perhaps developing alongside the town itself.

Objectives and methodology

The primary aim of the watching brief was to excavate and record any archaeological deposits affected by the proposed groundworks. This involved monitoring any areas of significant ground reduction in respect of the new flood wall. Where archaeological deposits which may warrant preservation *in-situ* were encountered, their treatment was to be discussed in consultation with the client and the West Sussex County Council

Archaeological Officer. Where it was not possible or practicable to preserve archaeological remains *in-situ* the features were to be excavated by hand and fully recorded, to ensure their preservation by record.

All significant ground reduction was to be carried out using a machine fitted with a toothless ditching bucket, under constant archaeological supervision.

The watching brief was to be carried out in accordance with the relevant sections of *Sussex Archaeological Standards* (ESCC 2019), and the guidelines issued by the Chartered Instituted for Archaeologist (CIfA 2014).

Results

It became apparent at the start of the project that the scope of the works to be monitored during the archaeological watching brief had been reduced for various reasons. As a result, the only groundworks monitored were associated with a series of pits dug up against the existing river wall. The pits were positioned roughly 2m apart, generally measuring 0.80m by 0.65m, and were initially dug by hand to a depth of about 0.50m. Following the hand excavation of the pits, a 0.40m diameter hole was drilled in the base of each pit, using a machine powered auger. The plan was then to place a steel girder in each hole, before backfilling the pits with concrete. New brick buttresses would then be constructed, which would support the river wall.

Unsurprisingly, the hand dug pits exposed the footings of the existing river wall (Figs. 3 and 4; Pls1-4). The material excavated from the pits, to a depth of about 0.50m, consisted wholly of dark modern soil. Concrete was encountered below this soil deposit at the base of many of the pits. The concrete and brickwork were removed as necessary, without archaeological supervision, before the central holes were dug by the auger. The augering of two of the westernmost holes was monitored, and the stratigraphy generally consisted of about 0.60m of made ground and / or concrete, above 0.55m of light yellow brown sandy clay, which in turn lay above a deposit of dark bluish grey silty clay, which was at least 0.60m thick. The latter deposit was sodden, and the second hole to be monitored quickly filled up with water once it had been augured to a depth of 1.80m.

Following discussions between the consultant (Mr Paul White) and the Environment Agency's archaeologist, it was agreed that there would be no merit in continuing to monitor the boreholes, as if there were any archaeological deposits present, they would be almost impossible to interpret and record.

Conclusion

The archaeological watching brief in respect of the Arun Tidal Defence Scheme comprised the monitoring of a series of pits against the existing river wall, on the opposite bank to the historic core of the town. The pits were excavated by hand to a depth of 0.50m, but only modern soil and concrete was recorded. Limited monitoring of

augered boreholes within the hand dug pits established that the natural geology lay directly below modern deposits, which were approximately 1.1m thick. No archaeological finds or features were recorded.

References

BGS, 1996, *British Geological Survey*, 1:50,000, Sheet **317/332**, Solid and Drift Edition, Keyworth.

CIfA, 2014, *Standard and guidance for archaeological watching briefs*, Chartered Institute for Archaeologist, Reading.

ESCC, 2019, *Sussex Archaeological Standards,* East Sussex County Council, Lewes (2nd edition).

Mills, A D, 1993, *English Place-names*, Oxford.

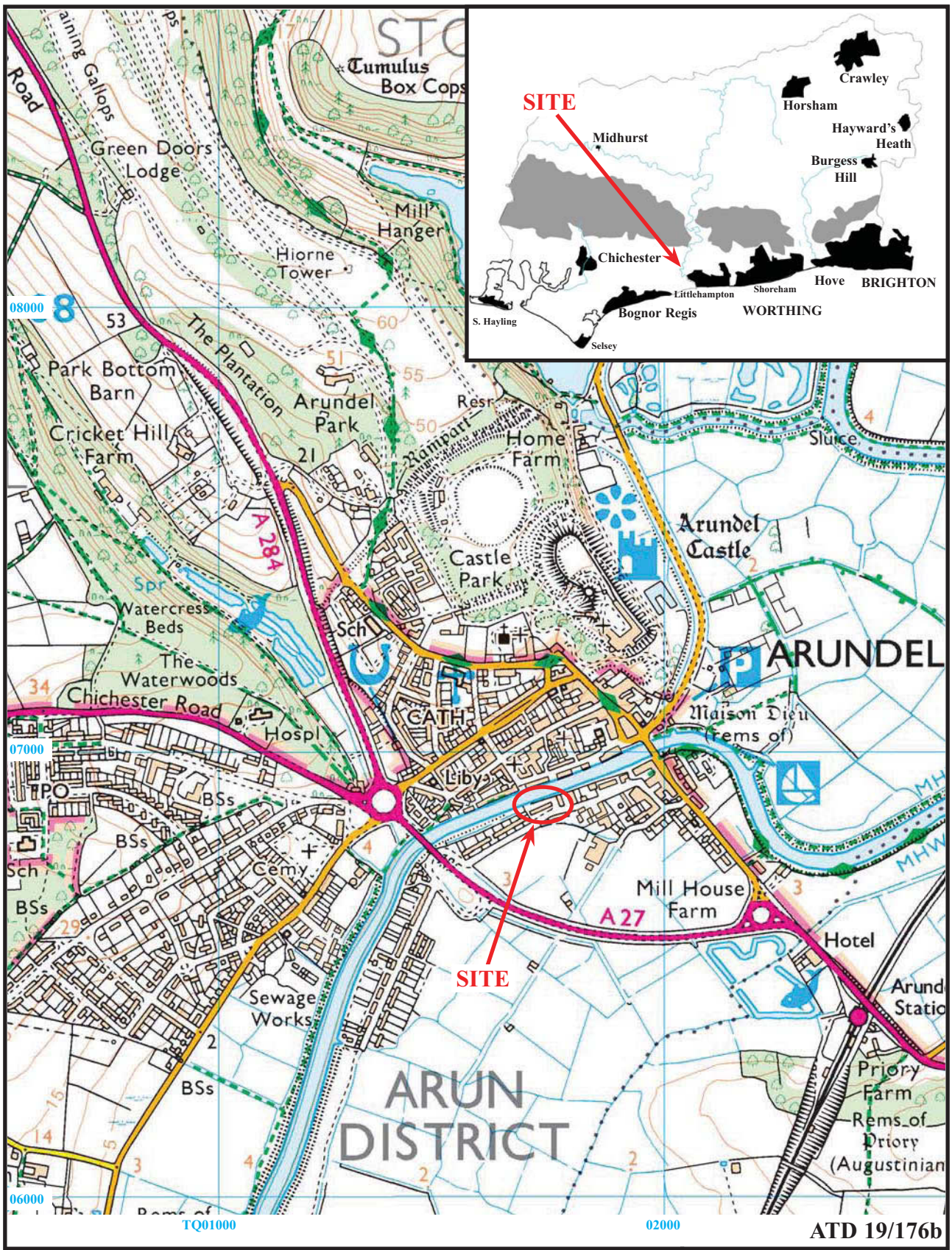

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Figure 1. Location of site within Arundel and West Sussex.

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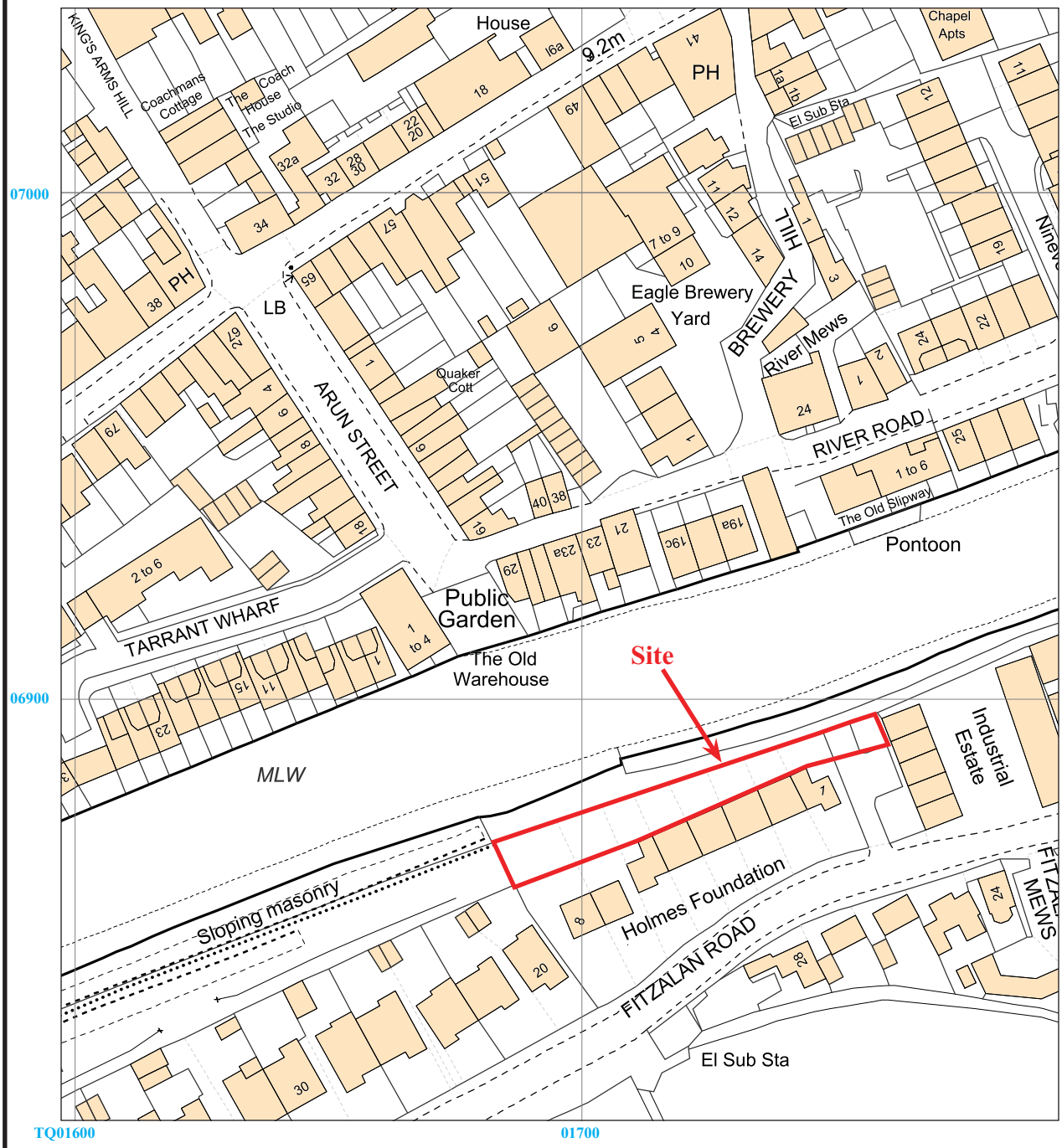

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Figure 2. Detailed site location.

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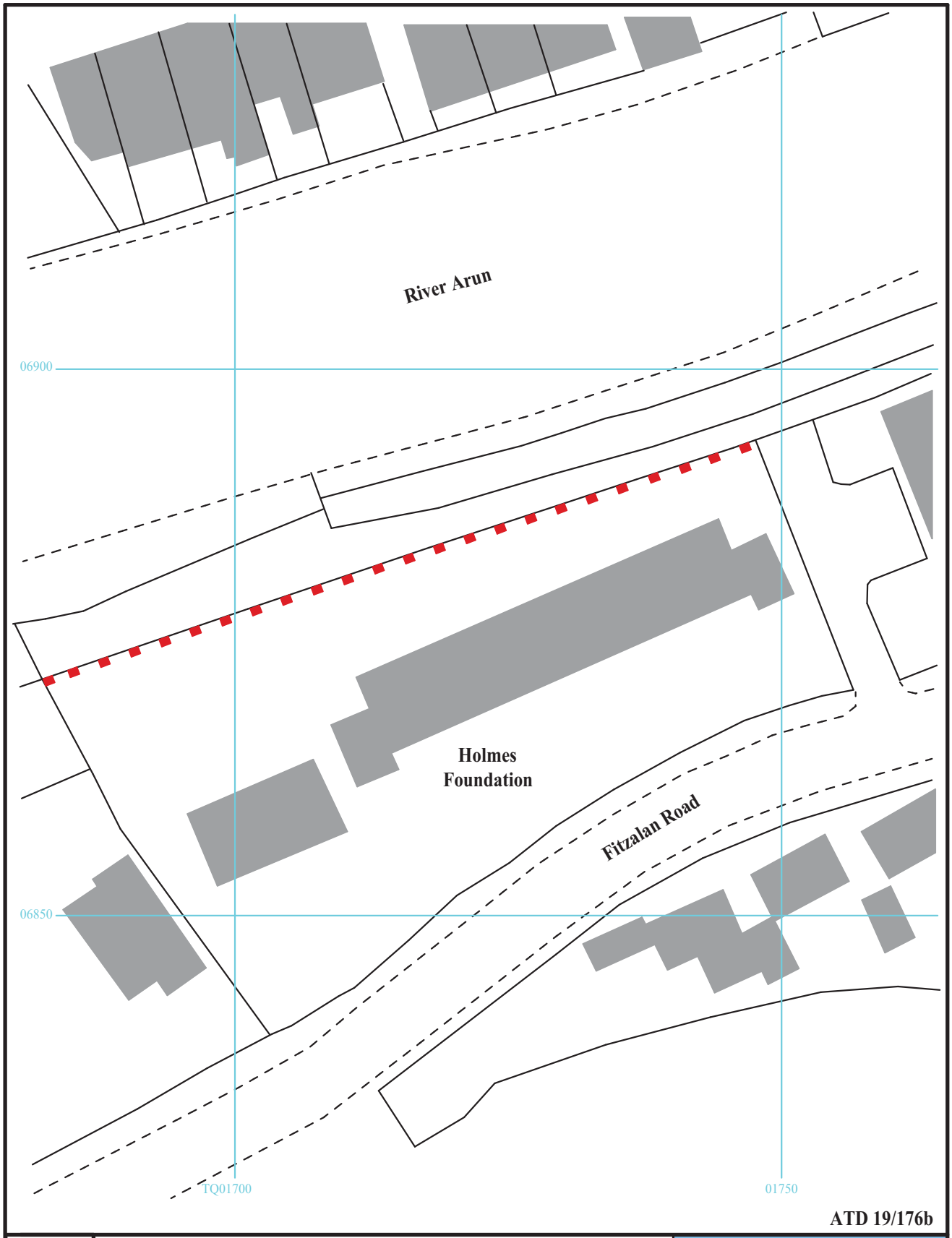

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Figure 3. Plan showing the pits monitored during the watching brief (in red).

0 25m

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Typical stratigraphy based on results of augering

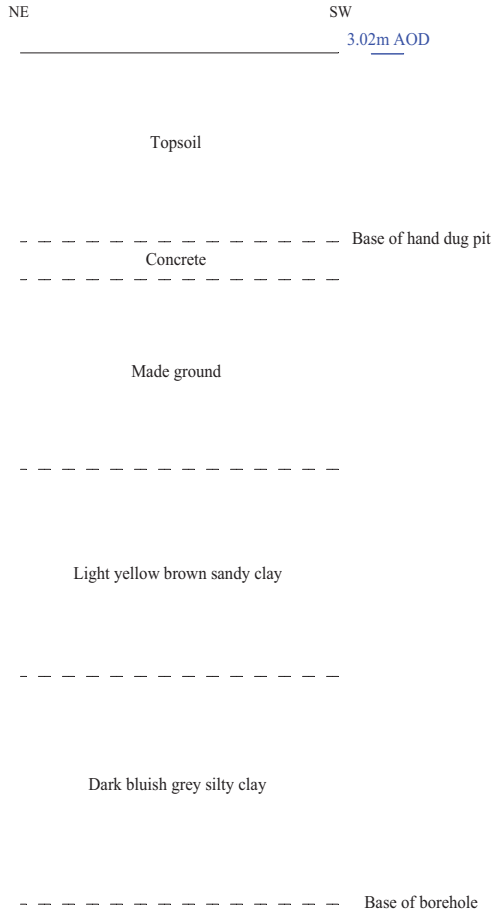

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Figure 4. Representative section.

0 1m

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Plate 1. General view of site, looking ENE.

Plate 2. General view of site, looking WSW.

Plate 3. Typical hand dug pit, looking ENE.
Scale: 0.50m.

Plate 4. Typical bore-hole, looking WSW.

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River Arun Tidal Defence Scheme,
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Plates 1 to 4.

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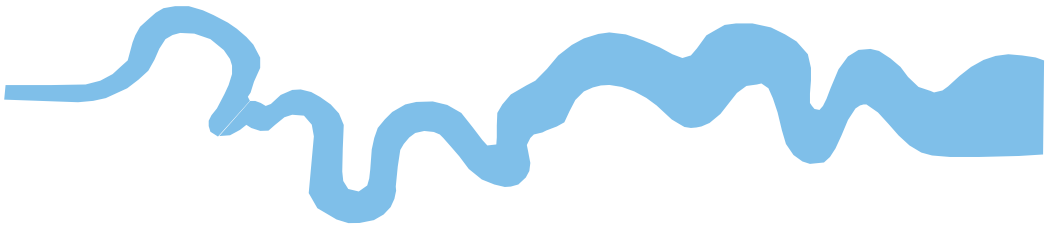
TIME CHART

	Calendar Years
Modern	AD 1901
Victorian	AD 1837
Post Medieval	AD 1500
Medieval	AD 1066
Saxon	AD 410
Roman	AD 43
	AD 0 BC
Iron Age	750 BC
Bronze Age: Late	1300 BC
Bronze Age: Middle	1700 BC
Bronze Age: Early	2100 BC
Neolithic: Late	3300 BC
Neolithic: Early	4300 BC
Mesolithic: Late	6000 BC
Mesolithic: Early	10000 BC
Palaeolithic: Upper	30000 BC
Palaeolithic: Middle	70000 BC
Palaeolithic: Lower	2,000,000 BC



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