

**Archaeological Evaluation on Land Adjacent to Marshlands, Jubilee Road, Worth,
near Sandwich, Kent**

Site Code: SMW-EV-17

NGR: NGR Site Centre: 633640 155370

Planning Application Number: DOV/16/01119



Report for Caroline Bayman

21/11/2017

v02

SWAT ARCHAEOLOGY

Swale and Thames Archaeological Survey Company

The Office, School Farm Oast, Graveney Road

Faversham, Kent ME13 8UP

Tel; 01795 532548 or 07885 700 112

info@swatarchaeology.co.uk www.swatarchaeology.co.uk

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Abstract

Swale & Thames Survey Company (SWAT Archaeology) were commissioned by Caroline Bayman to undertake an archaeological evaluation on adjacent to Marshlands, Jubilee Road, Worth, near Sandwich in Kent. The archaeological works were monitored by the Kent County Council Senior Archaeological Officer.

The fieldwork was carried out in January 2017 in accordance with an archaeological specification (Kent County Council 2016) submitted to the Local Planning Authority prior to commencement of works.

The Archaeological Evaluation consisted of four trenches, which encountered a relatively common stratigraphic sequence comprising topsoil and subsoil overlying natural geological Brickearth and Chalk. The evaluation has demonstrated that archaeological remains with a predominantly Early-to Mid Iron Age date-range of c. 600 to c. 300 were present on the site at depths of between 0.6m and 0.72m below the present ground surface.

The remains, amongst which were parts of a probable building or buildings, a flint-cobbled trackway and two occupation deposits, almost certainly comprised the remains of the same settlement, albeit during an earlier period of occupation, exposed to the west, suggesting that a long-lived Iron Age settlement of considerable size occupied the general area. It is likely that the settlement benefitted from its location close to established routes in terms of trade and communication. The ceramic evidence clearly indicates that the settlement preceded the onset of the conventionally termed 'Belgic' period (c. 150 BC), which saw the introduction of the potters wheel and continued well into the Mid Roman period.

The presence of Iron Age settlement within and around the site is indicated by the presence of domestic rubbish (potsherds, crudely worked flint and animal bone of cattle, horse, dog, sheep and swine) recovered from nearly all deposits overlying the primary occupation horizon removed manually. Such a large amount of such material recovered from the relatively small volume of the deposits removed by hand (approximately 11m³) during the investigation points to the intensive and/or protracted occupation activity on or near the development site.

It is evident from the results of the evaluation that significant archaeological remains are present within the proposed site. It is considered high likely that these remains have associations with known Iron Age settlement within the surrounding area. It is therefore recommended that any future archaeological works, should they be deemed necessary, takes into consideration the wider archaeological landscape, in particular the major Iron Age site and ditched enclosure.

Archaeological Evaluation on Land Adjacent to Marshlands, Jubilee Road, Worth, near Sandwich, Kent

NGR Site Centre: 633640 155370
Site Code: SMW-EV-17

1 INTRODUCTION

1.1 Project Background

1.1.1 Swale & Thames Survey Company (SWAT Archaeology) were commissioned by Caroline Bayman to undertake an archaeological evaluation on adjacent to Marshlands, Jubilee Road, Worth, near Sandwich, Kent (**Figure 1**). A planning application (DOV/16/01119) was approved by Dover District Council (DDC) for two semi-detached dwellings with associated landscaping and parking, on condition that a programme of archaeological work is undertaken.

1.1.2 In mitigation of the potential impact that the development may have on the buried archaeological resource Kent County Council Heritage & Conservation, who provide an advisory service to DDC, requested that the programme of works comprising an archaeological evaluation followed by appropriate mitigation measures, if considered necessary. This recommendation was subsequently added as a Condition to the planning approval, which stated that;

No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved in writing by the local planning authority. Reason: To ensure that features of archaeological interest are properly examined and recorded. These details are required prior to the commencement of the development as they form an intrinsic part of the proposal, the approval of which cannot be disaggregated from the carrying out of the rest of the development.

(DOV/16/01119, Condition 14, 29/03/2017)

1.1.3 The fieldwork was carried out in January 2017 in accordance with an archaeological specification prepared by Kent County Council (KCC 2016) prior to commencement of works. A copy of the Specification is provided in **Appendix 3**.

1.2 Site Description and Topography

1.2.1 The site is centred on NGR 633640 155370, lying between a large open field extending eastward of Deal Road (A258) and west of Jubilee Road, about 600m south of Worth village centre. The site is situated between 'Marshlands', to the south, and 'Sea Marsh' to the north (**Figure 1**). The site gently undulating at a level of approximately 9m aOD (above Ordnance Datum). The site is bounded residential properties to the north and south, by agricultural land to the west and by Jubilee Road to the east.

1.2.2 west by open agricultural land and to the east by Jubilee Road onto which the site fronts.

1.2.3 According to the KCC Specification, the underlying geology comprises bedrock chalk of the Margate Chalk Member. The site is located on a localised area of slightly raised ground overlooking the reclaimed marshland of the Lydden Valley (KCC 2016: 4.1).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 Further details of previous discoveries and investigations within the immediate and wider area may be found in the Kent County Council Historic Environment Record and have been summarised in the Specification produced by KCC (2016), as set out below.

2.2 Overview (KCC 2016)

2.2.1 'The proposed development site lies immediately adjacent to a Scheduled Monument (National Heritage List no 1004225). The Scheduled Monument is focussed on the site of a 'Romano-Celtic' temple and earlier Iron Age site which was investigated in part in 1925. The temple is thought to have been built in two phases and archaeological investigations suggest that it is located on the site of an earlier Iron Age shrine. This Iron Age shrine forms part of a much more extensive Iron Age site which clearly extends beyond the bounds of the Scheduled Monument'.

(KCC 2016: 5.2)

2.2.2 'Investigations by the Dover Archaeological Group in the mid-late 1980s identified a major Iron Age site set within a substantial ditched enclosure extending over some seven hectares. The proposed development site would lie towards the centre of this enclosure. A significant number of coins (several hundred) dating to the Iron Age and Romano-British periods have

been recorded in the area; indeed the site has produced one of the largest collections of pre-Roman coins from Kent’.

(KCC 2016: 5.3)

- 2.2.3 ‘Recent archaeological survey, including works by the University of Leicester as part of their Leverhulme Trust funded research project “In the footsteps of Caesar; the archaeology of the first Roman invasions of Britain”, has helped to define the area of Iron Age activity. It has become clear that this important Iron Age and Romano-British site covers an area more extensive than the limits of the present scheduling. As such the area designated as a Scheduled Monument covers only a small part of this important site and it is very probably that archaeological remains equivalent significance to those within the scheduled area will extend into the site in question’.

(KCC 2016: 5.4)

2.3 Scheduled Monument 1004225

- 2.3.1 As mentioned above, the current development site lies a relatively short but not precisely known distance east of a Scheduled Monument designated under the Ancient Monuments and Archaeological Areas Act 1979 (List entry 1004225). The original designation has been amended as the site is now deemed by the Secretary of State to be of national importance, for the reasons given below, although in general very little appears to be known of the overall settlement site, its total extent and age and the exact location of the Romano-British temple. The scheduled site was partly excavated in 1925 and more fully investigated in 1985-9.

- 2.3.2 The scheduled site’s importance rests in the possibility of continuity of ritual/religious continuity which is reflected in structural/physical continuity between the Late Iron Age and the Roman period. Such continuity is suggested by some evidence recovered from the scheduled site. Harding states the following:

‘That there was such physical continuity is suggested very strongly by the number of Romano-Celtic [sic] temple sites in lowland Britain where objects of pre-Roman rather than simply Romanised Celtic [sic] character have been found, though in most cases it has not proved possible to relate Iron Age structures for which a ritual function might reasonably be claimed ... the nature of the problem is well illustrated by the excavations at Worth, Kent (Klein, 1928; C. F. C. Hawkes, 1940b). Beneath the cella of the Romano-Celtic temple were located postholes and an area of flooring, from which pottery of finger-tip ornament in Iron ‘A’ style was recovered, together with other fragments with pedestal bases, which should probably

be attributed to a slightly later phase. In addition, the underlying levels of the temple produced a bone weaving -comb and a La Tène I brooch, attesting Iron Age occupation at least as early as the fourth century BC. For the present discussion, however, the most relevant discovery was that of three bronze votive shields – two of them fragmentary – which were identified in pre-Roman levels beneath the temple site ... Votive objects such as these probably afford the most convincing evidence which we are ever likely to obtain to demonstrate the sanctity of an Iron Age site. Clearly the environs of the Worth temple would merit further excavation, in an attempt to recover a plan of any pre-Roman structures which may have existed on the site’.

Harding (2015, 103)

2.3.3 The Historic England website for the monument states that the so-called Romano-Celtic temple was 8.5m square surrounded by an ambulatory of some 16m length and 15.5m width. The building is thought to have been constructed in two phases, the second incorporating fragments of stone sculpture and tiles from the first in its fabric. The 1985-9 excavations identified three phases of Iron Age occupation on the site, Early, Mid and Late, with pottery from all these periods being present (the present writer opines that continuous occupation rather than multiple re-occupation is a more plausible interpretation).

2.3.4 The coin evidence from the site is copious and of interest. Well over 100 coins Late Iron coins have been recovered, many associated with various north Gaulish and local and further-afield southern British tribes such as the Cantii/Cantiaci, the Trinovantes, the Ambiani and the Atrebates. Perhaps more exotically, a Balearic coin from the Ebusus series and dating from c. 210 - 190 BC has also been recovered (Holman 2005).

2.4 Wider Setting

2.4.1 It is acknowledged that the Scheduled Monument is set within a larger Iron Age landscape extending over approximately 7 hectares (Ben Found *pers comm* and KCC 2016: 5.2). Recent excavation carried out by the University of Leicester have suggested that the earthworks extend at least 120m east of the proposed development site, although unfortunately no record of these excavations can be found.

3 AIMS AND OBJECTIVES

3.1 Specific Aims (KCC 2016: 6.1-6.2)

3.1.1 The specific aims of the archaeological fieldwork are set out in the Specification (Appendix 3). These were to;

The aim of the evaluation work is to determine whether any archaeological remains survive on site, and in particular to determine, as far as is possible, whether nationally important archaeological remains are present that could require preservation and should be considered in accordance with paragraph 139 of the NPPF, or whose excavation might be so onerous as to be an unreasonable burden to secure through a condition. The results of the evaluation will be used by the Local Planning Authority and their advisors to understand the significance of any archaeological remains present and in turn to enable an informed assessment of the development impacts.

The evaluation is thus to ascertain the extent, depth below ground surface, depth of deposit, character, importance, significance and condition of any archaeological remains on site.

(KCC 2016: 6.1-6.2)

3.2 General Aims

3.2.1 The general aims of the archaeological fieldwork were to;

- establish the presence or absence of any elements of the archaeological resource, both artefacts and ecofacts of archaeological interest across the area of the development;
- ascertain the extent, depth below ground surface, depth of deposit if possible, character, date and quality of any such archaeological remains by limited sample excavation;
- determine the state of preservation and importance of the archaeological resource, if present, and to assess the past impacts on the site and pay particular attention to the character, height/depth below ground level, condition, date and significance of any archaeological deposits.

4 METHODOLOGY

4.1 Introduction

4.1.1 All fieldwork was conducted in accordance with the methodology set out in the KCC Specification (2017) and carried out in compliance with the standards outlined in the Chartered Institute for Archaeologists' Standards Guidance for Archaeological Evaluations (CIfA 2014).

4.2 Fieldwork

4.2.1 A total of four evaluation trenches were proposed within the extents of the Site (Figure 1).

4.2.2 Each trench was initially scanned for surface finds prior to excavation. Excavation was carried out using a 360° mechanical excavator fitted with a toothless ditching bucket, removing the overburden to the top of the first recognisable archaeological horizon, under the constant supervision of an experienced archaeologist.

4.2.3 Where appropriate, trenches, or specific areas of trenches, were subsequently hand-cleaned to reveal features in plan and carefully selected cross-sections through the features were excavated to enable sufficient information about form, development date and stratigraphic relationships to be recorded without prejudice to more extensive investigations, should these prove to be necessary. All archaeological work was carried out in accordance with KCC and CIfA standards and guidance. A complete photographic record was maintained on site that included working shots; during mechanical excavation, following archaeological investigations and during back filling.

4.3 Recording

4.3.1 A complete drawn record of the evaluation trenches comprising both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections) was undertaken. The plans and sections were annotated with coordinates and aOD heights.

4.3.2 Photographs were taken as appropriate providing a record of excavated features and deposits, along with images of the overall trench to illustrate their location and context. The record also includes images of the Site overall. The photographic record comprises digital photography. A photographic register of all photographs taken is contained within the project archive.

5 RESULTS

5.1 Introduction

5.1.1 A total of four evaluation trenches were mechanically excavated under archaeological supervision (Figure 2).

5.2 Stratigraphic Deposit Sequence

5.2.1 A relatively consistent stratigraphic sequence was recorded across the majority of the Site comprising topsoil (CRN 1) sealing an intact subsoil (CRN 2) which overlay archaeological and the natural geology.

5.2.2 The topsoil (CRN 1) generally consisted of mid to dark brown humic silty clay, moderate roots and occasional small rounded stones, topped with grass, overlying the subsoil. The subsoil (CRN 2), which was present in all four trenches and contained archaeological finds (see individual trench descriptions below), sealed CRN 3 – both of these layers are believed to represent occupation/tread horizons. Individual variations for these three deposits are detailed on a trench by trench basis below.

5.2.3 Natural geology (CRN 12) comprised both Brickearth and Chalk, as shown on Figures 2-4 and Plates 1-9.

5.3 Trench 1 (Figure 3)

5.3.1 Trench 1 was located within the eastern extent of the site, measured 7.5m in length, 1.6m in width and was excavated on a north-south orientation.

5.3.2 Overlying the tread layer CRN 03 within this trench, four identical compact horizontal deposits (all recorded as CRN 6 and all left in-situ) of crushed chalk occurred, almost certainly representing the remains of a deliberately laid internal floor or, less likely, floors, probably associated with a dwelling (Figure 3). Where visible, the chalk deposits were 25mm thick. The view that the compact chalk represented a floor or floor deposits was supported by the presence on it of a discrete 30mm-thick burnt daub-rich, hearth-like deposit (CRN 7) and a substantial post pit (CRN 5) cutting down from it and a 100mm-wide gully (CRN 11). The post pit was 0.45m deep, with a diameter of 0.62m. Its mid grey-brown silty fill (CRN 4) produced two Late Iron Age potsherds with a date-range of c. 200 - c. 150/50 BC. This fill was sealed by an approximately 70mm-thick band of mid brown humic clay-silt, almost certainly an occupation layer (CRN 2). 523 fragments of potsherds, the great majority with a date-range of c. 600 – c. 300 BC, along with large, crudely struck, blade-like flints were recovered from

this deposit (may have been used in the butchering process), although provisional dating for four flints suggest an earlier prehistoric date (see Finds, below).

5.3.3 The large amounts of domestic detritus present in CRN 2 suggest that, at the time of its deposition, this part of the site was used as a dumping ground, possibly because it was situated on the periphery of the main settlement. This substantial occupation layer was sealed by up to 0.72m-thick mid-to-dark brown humic soil (CRN 1), clearly an agricultural and then garden soil.

5.4 Trench 2 (Figure 4)

5.4.1 Trench 2 was located immediately west and measured 8.5m in length, excavation on an east-west orientation.

5.4.2 Trench 2 exposed the primary occupation layer (CRN 3) in its eastern end, where it immediately underlay the thicker and more substantial occupation deposit (CRN 2), both as previously described. However, in the western part of the trench, a dark humic soil (CRN 23) with a maximum observed thickness of 0.32m (in Trench 4, where it was also present, see below) intervened between the two. This deposit produced no potsherds or animal bone and indicated that the more substantial, higher lying occupation layer (CRN 2) probably accumulated following an interval of lower-intensity or suspended settlement activity in this part of the site.

5.4.3 CRN 3 produced nine potsherds with a date-range of c.600 – c.300 BC.

5.4.4 More intensive occupation/settlement activity contemporary or nearly contemporary with the primary occupation activity took the form of a shallow (60mm-thick), bowl-like pit (CRN 14), the charcoal-rich fill of which (CRN 13) contained no cultural materials, and a discrete, 0.12m-thick mound of crushed chalk and scorched daub (CRN 24), also devoid of cultural material. Both of these underlay the previously described intervening deposit (CRN 23) and overlay or cut down from the primary layer (CRN 3). However, in the western end of Trench 2 a 0.12m-thick band of very silty clayey soil (CRN 15 = CRN 20 in Trench 4) underlay the intervening deposit (CRN 23) and produced 48 Early-Mid potsherds with a date-range of c. 600 – c. 300 BC, along with much animal bones, albeit in smaller quantities than from the overlying layers.

5.4.5 The silt-dominated deposit (CRN 15 = CRN 20) covered a horizontal flint-cobbled surface (CRN 25, left in situ) that was also exposed in the northern part of Trench 3 and the southern part

of Trench 4. The flint cobbled surface, along with the overlying silt layer, lay within a shallow (0.12m) linear depression (cut number 16, which also contained the previously discussed silty clay layer CRN 15). The feature represented by CRNs 15 and 16 in Trench 2 and 20 and 21 in Trench 4 was of unascertained width but had an apparent north-west/south-east alignment. A certain interpretation of the function/use of the cobbled surface could not be achieved within the limited area of exposure of three trial trenches, but composite evidence in the form of its position and probable alignment suggested a probable interpretation as a roughly metalled slightly sunken trackway.

5.5 Trench 3 (Figure 4)

5.5.1 Trench 3 was located to the south of Trench 2, excavated on a north-south alignment over a length of approximately 6.2m.

5.5.2 A trial pit cut in the northern end of Trench 3 (Fig. 4) exposed a stratigraphic sequence which was identical to that exposed in the western end of Trench 2 and consisted of, from the base up: a cobbled surface [CRN 25] under very silty soil [CRN 15] under a dark brown humic soil [CRN 23] under substantial occupation layer [CRN 2] under the uppermost layer of agricultural/garden soil [CRN 1]). Another shallow trial pit cut in the southern end of Trench 3 (Fig. 4) showed the substantial occupation layer (CRN 2) to immediately overlie natural brickearth (CRN 12) and to underlie topsoil (CRN 1) in this area.

5.6 Trench 4 (Figure 3)

5.6.1 Trench 4 was located north of Trench 2, on the same alignment as Trench 3, and measured approximately 5.3m in length.

5.6.2 At the southern end of Trench 4, the exposed stratigraphic sequence was identical to that recorded in the western end of Trench 2 and the northern end of Trench 3, that is: cobbled surface 25 under silty soil 15 (recorded here as CRN 20) under dark brown humic soil 23 under substantial occupation layer 2 under agricultural/garden soil 1 (Fig. 3). The silty deposit (CRN 20) overlying the flint cobbles in Trench 4 produced five potsherds with an only broadly ascertainable date-range of c. 600 to c. 200 BC, along with several large fragments of iron slag, indicative of some form of iron production or working on or near the site. Investigation in the northern end of Trench 4 exposed a basal layer of flint cobbling (CRN 17/18, not part of cobbled surface CRN 25) and, separated by the intervening dark brown soil (CRN 23) from a discontinuous chalk layer (CRN 22) that was contemporary with and comprised part of the uppermost occupation layer (CRN 2) (Fig. 3). This may have been a surviving part of an internal floor contemporary with the postulated structural remains exposed in Trench 1

6 FINDS

6.1 Introduction

6.1.1 An assessment of all archaeological finds is provided in the following section of the report, which includes ceramics, lithics, faunal remains and environmental assessment of bulk samples recovered. Additional data supplementing the assessments is provided in Appendix 1, where required.

6.1.2 The specialist assessments were carried out by the following;

Ceramic Assessment: Nigel Macpherson-Grant

Lithic Assessment: Paul Hart

Faunal Assessment: Carol White

Environmental Assessment: Lisa Grey

6.2 Ceramic Assessment

Introduction

6.2.1 Although only a medium-sized assemblage of 1049 sherds was recovered during the evaluation, it is distinguished by the predominance of frequently fairly thick-walled individually relatively heavy bodysherds of Later Prehistoric pottery – hence its rather surprising overall weight of 21kgs.761gms. There is no ceramic material that can be confidently claimed to be earlier than c.600/500 BC and none recovered that is later than c.1750 AD.

6.2.2 Context-related spot dates for the assemblage are listed in Appendix 1, for reference.

6.2.3 Embraced by the above parameter, the definitely multi-period assemblage represents apparently continuous occupation from the fifth century BC right through to, at least, the later second century AD. Within this span, and irrespective of allocation problems (see Period-based summary below), period quantities vary. Without detailed numeric comparison with the material recovered from the recent Dover Archaeological Group's excavations, it is impossible to determine whether the current set of variations represent genuine inter-period occupational intensities or not. However, on the basis of what is already known about the material from various excavations within the overall Worth enclosure, it is likely that any inter-period variation within the 2017 assemblage is due to differing, and very localised,

discard tendencies. Overall, this Evaluation has produced some good and new 'not-seen-before' or relatively rarely occurring elements – notably the designs on some of the Early-Mid Iron Age painted wares and some transitional, 'primitive', early Belgic-style material.

Site-Based Summary

- 6.2.4 Although only a medium-sized assemblage of 1049 sherds was recovered during the evaluation, it is distinguished by the predominance of frequently fairly thick-walled individually relatively heavy bodysherds of Later Prehistoric pottery – hence its rather surprising overall weight of 21kgs.761gms. There is no ceramic material that can be confidently claimed to be earlier than c.600/500 BC and none recovered that is later than c.1750 AD. Embraced by this parameter the definitely multi-period assemblage represents apparently continuous occupation from the fifth century BC right through to, at least, the later second century AD. Within this span, and irrespective of allocation problems (see Period-based summary below), period quantities vary. Without detailed numeric comparison with the material recovered from the recent Dover Archaeological Group's excavations, it is impossible to determine whether the current set of variations represent genuine inter-period occupational intensities or not. However, on the basis of what is already known about the material from various excavations within the overall Worth enclosure, it is likely that any inter-period variation within the 2017 assemblage is due to differing, and very localised, discard tendencies. Overall, this Evaluation has produced some good and new 'not-seen-before' or relatively rarely occurring elements – notably the designs on some of the Early-Mid Iron Age painted wares and some transitional, 'primitive', early Belgic-style material.

Condition-based summary

- 6.2.5 The overall assemblage is dominated by small, frequently moderate-sized, sometimes fairly large sherd elements, irrespective of period. Sherd condition varies throughout, with both fairly or moderately worn elements alongside little worn or near-fresh material – and again irrespective of period. Seen as parts of a chronological spectrum, there are few radical differences in wear-pattern – period to period - even within multi-period context-assemblages from stratigraphically higher layers. The only exception to this trend appears to be amongst the MLIA material – which does tend to have fresher material than other periods. This could suggest that, for much of its history, the Worth 'black band' accumulated as an open-ground intra-settlement discard zone with varying depositional episodes, within each period, of e.g., freshly broken spreads or clusters followed by spreads of already broken and fairly weathered material.

Period-based summary

6.2.6 Context-assemblages containing a high degree of residual pottery that represent relatively long inter-period sequences of Later Prehistoric occupation, with its predominant usage of flint-tempered vessels, frequently produces material that can only be allocated broadly, at best to perhaps two-period spans, sometimes three or more. This particularly applies to the present Worth assemblage and is reflected in Table 1's high Uncertain category of allocation. In addition, with this assemblage, there is a further complication epitomised by the apparently low Mid Iron Age component. Not only does this period, as currently dated (see below) embrace the transition between two different ceramic traditions, many of the rim types and surface finishes that characterize the later phases of the MIA are shared by the ceramic of the Mid-Late Iron Age. Despite this handicap, the present material includes a good range of diagnostic forms and finishes that do allow for confident placement

Date-range of the ceramic materials

Number	Period
<i>Uncertain allocation</i>	
1	Earliest Iron Age (EIA)
138	Early-Mid>Mid Iron Age
231	Early-Mid>Mid-Late Iron Age
<i>Definite</i>	
322	Early-Mid Iron Age (EMIA)
7	Mid Iron Age (MIA)
120	Mid-Late Iron Age (MLIA)
13	Late Iron Age (LIA)
21	Latest Iron Age-Early Roman (includes Conquest-period AD)
32	Early Roman (ER)
6	Mid Roman (MR)
2	Post-Medieval (PM)

Table 1 *Period-based sherd totals*

Early Iron Age – c. 1000- c. 600 BC

6.2.7 This period is only suggestively signposted by one moderate-sized rather heavily worn coarseware bodysherd from Test Pit 2 Context 1. The sherd is from a thin-walled large-diameter jar with a degree of profuse flint tempering that, together with its buff firing colours could, superficially, easily be of this date. The likelihood its Early Iron Age date-range is underpinned by its thin-walled character, which is not really typical of Early-Mid Iron Age, Mid Iron

Age or even most Mid-Late Iron Age large coarseware jars. However, profuse flint-tempering is a fairly regular occurrence amongst MLIA products. Equally, no material of this date has been recognised amongst the fairly large quantities of Later Prehistoric material (all EMIA-plus) recovered by the Dover Archaeological Group from a series of excavations in private properties along Jubilee Road. The only pottery of Earliest Iron Age date in this general area is from several pits at Hacklinge Holes approximately a mile further east, towards Deal, and adjacent to the A258 (Parfitt forthcoming). As a result, and unless any definite identifications of EIA pottery are made in the immediate Worth village/temple zone in the future, this sherd is probably best considered as of MLIA date.

Early-Mid Iron Age – c.600-350 BC

- 6.2.8 Ceramic representing this period was recovered from every context although, as indicated above, some less diagnostic elements are likely to be of Mid Iron Age or less frequently of MLIA date. Typical period indicators are bodysherds from thick-walled, often very large diameter coarseware storage-jars and cooking-pots with deliberately rusticated surfaces, mostly below vessel shoulders. The 'rustication' occurs in various ways, mostly in a tactile form with the deliberate roughening of vessel surfaces with slurried, finger-fluted or, predominantly, the application of secondary skins of variably lumpy and grainy clay – but also a few with a more visual form – incised trellis-style cross-hatching and various types of combing – continuous or more decorative with horizontal bands with spaced vertical bands under. In addition to the normal range of sherds from plain undecorated but burnished fineware bowls and jars – there was a modest but tantalising range of elements from either plain slip-painted or polychrome and bichrome-painted vessels. The first category is represented by a plain fineware sherd from Test Pit 4 Context 2 that was given a good dark red slip of crushed iron-oxide and then a good shiny burnish. The second by a sherd from Test Pit 2 Context 2. This has a complex and neatly incised design of probably – going by other regional examples – a series of horizontally-spaced and regularly alternating plain burnished and filled squares on the vessel's shoulder panel. Each 'filled' example is given an incised cross of corner-to-corner crossing diagonals. The resulting upper and lower triangles of each are filled with red paint and each complete filled square is further bordered by a vertical band of white paint itself bordered by an incised line. The plain un-decorated squares are simply burnished. A good general regional parallel is the polychrome-painted bowl from Highstead (Couldrey 2007, Fig. 89, 386). The third category, bichrome-painted, is represented by sherds from two vessels – 3 same-vessel elements from Trench 3 Context 2 and one from Test Pit 3 Context 2. The design motifs on both are incomplete but, as extant, one has a bold shoulder

band of carefully incised chevrons between horizontal incised borders. The chevrons create upright and inverse triangles – and each upright triangle is filled with red paint. The other has a similar upper-body design but the incise-bordered triangles are separated from each other by broad red-painted bands and horizontally bordered (probably above and below) by further broad bands of red paint. With this example, the application is more irregular and careless – but still visually striking. A further un-painted but equally visually striking example – is a sherd from an angle-shouldered fineware bowl with a good fairly glossy burnish above horizontal and between spaced vertical bands of combing – again from Test Pit 2 Context 2.

- 6.2.9 All the above-quoted examples – both for fine and coarsewares – are typical of the general period c.600-350 BC. However, no examples of the fineware bowls with complex-moulded shoulders that are typical of the period c.600-450 BC were recovered from the current work so that placement here between c.500-350 BC is, in the interim, more appropriate. Continued occupation into at least the first half of the fourth century or slightly later may be confirmed by a sherd from a large sub-fineware vessel from Test Pit 4 Context 2 with a pedestal base and rather thickly potted lower body wall – and potentially similar to a large high-shouldered bipartite fineware jar from Avion La Republique, Departement Pas-de-Calais and dated there to c.400-350 BC (Hurtrelle et.al., 1989, 121).

Mid Iron Age – c.400-200 BC

- 6.2.10 The report on the Later Prehistoric pottery sequence from the 1997-99 Channel Tunnel Rail Link (CTRL) work is accompanied by a sequence of radiocarbon dating which placed the Mid Iron Age as spanning the fourth-third centuries BC (Morris 2006, Fig.3.2). The value of the associated illustrated pottery for this period is that it clearly embraces two ceramic traditions – the end of the Halstatt style with its more angular forms and the beginning of the La Tene style with its preponderance of curvaceous rounder-bodied more ovoid or S-profiled vessels (Morris op.cit. Figs.3.8a-g). Its dating for the preceding Early-Mid Iron Age is between c.600-350 BC which give a 50-year odd overlap with the dating for the MIA. This does mean that, in that report, those vessels that are still being influenced by EMIA Halstatt-style potting trends can be placed between c.400-350 BC if not rather later (Morris op.cit. 3.8a-c). The La Tene style material (particularly op.cit. 3.8-d-e) which is broadly similar to MLIA styles should, and does, come towards the end of that date-span, ie. before 200 BC. What remains unclear is when, prior to c.200 BC, did regional assemblages begin to have a predominance of curvaceous La Tene style ceramic – 50 years or 100 years earlier? The figured CTRL material definitely enshrines the transition phase – what remains uncertain is where it should be placed chronologically – between c.350-300 BC or c.350-250 BC? The present analyst feels

that c.350-300 BC or a little later is a likely watershed date but is still unwilling to place predominantly La Tene style assemblages much before c.275/250 BC.

- 6.2.11 This type of argument also applies to the transition between the MIA and the MLIA. Classic eastern region MLIA coarsewares with facet-finished rims and severely knife-trimmed bodies are certainly datable to between c.150-50 BC, but there is a personal unwillingness to place these finishing characteristics as early as c.200 BC. Similarly, material that could represent the MIA to MLIA transition, ie. to between arguably c.225-175 BC, still needs firm characterisation. There are clues, but more inter-assemblage examination is needed. In addition, both the later phases of the MIA and the MLIA share a trend for the production of simple slightly incurve-rimmed bowls and upright-rimmed tub forms or 'saucepan' pots, the former type also occurring within the EMIA. Again, with both periods sharing a tendency for round or ovoid-bodied and simple out-curving evert-rimmed finewares, confident placement of rather fragmentary material is hindered.
- 6.2.12 Applied to the present assemblage, this means that there is a fairly high proportion of simple-rimmed coarsewares and finewares that could equally well be placed into the MIA or the MLIA. Despite this rather pessimistic note, MIA types – angle-shouldered foot-ringed finewares, so-called 'Marnian' bowls of fourth century date, are known from previous work and at least one example is almost certainly represented from the present work - part of a base with a large-diameter foot-ring with a low-angled body wall springing from it – and possibly red-finished originally. This vessel and a few other angle-shouldered but rather crudely finished fineware jars and a number of coarsewares are probably of fourth century date - but could be earlier. One nice fineware jar bodysherd from Trench 3 Context 2 has, on its shoulder zone, a design consisting of an incised square or rectangle subdivided by, probably, incised crossing diagonals – as with the EMIA polychrome-painted sherd mentioned above – with the resultant intra-square triangles alternately plain and decorated. In this instance, however, the decoration consists of multiple lines of comb-tip impressions. This regular use of alternate contrasting plain burnished/un-burnished and painted zones is predominantly a sixth-fifth century trend, although it continues as a basic design technique at least as late as the earlier MLIA (see below). However, in other instances, the painted portions are replaced by variably plain burnished contrasting with plain un-burnished or, as here, plain zones contrasting with incise- or impress-infilled zones. Although it needs greater confirmation, this alternate format seems to occur rather more frequently on fourth century and later finewares. On third and second century BC bowls and jars the designs are La Tene-

style and curvilinear – here the design is rectilinear and still Halstatt in style – so a date between c.400-350 BC or slightly later is likely.

- 6.2.13 Some of the simple rimmed vessels - ‘saucepan’ type coarsewares and some of the thicker, less flaring fineware rims - almost certainly belong within the third century BC. Confirmation of late MIA and early MLIA activity at Worth is provided by several sherds from the Dover Archaeological Group’s work. These are from, mostly, wide-mouthed bowls with short everted and round-lipped rims, their neck shoulder junctions horizontally delineated with a single groove above round bodies. These vessels are very neatly and competently potted. There are two other regional examples – both from Thanet – with one rim (un-published) from the recent East Kent Access Phase II work at Tothill Road, Minster (MOLA project KT-TSM10) and the other from a Mid to Mid-Late Iron Age structure at Fort Hill, Margate 1998. This example is near-complete and is a fairly deep wide-mouthed bowl its upper body panel decorated with a curvilinear design consisting of alternating red-painted and plain burnished zones (an idealized digitality has been illustrated in Moody 2008, Fig.80). This vessel has been placed between c.225-175 BC on stylistic grounds (Rigby pers.comm.). Although the other Worth and Thanet vessels are solely represented by rims, the strong similarity in neat production and form suggests all are broadly contemporary – so that this date can be fairly confidently applied to the Worth examples.

Mid-Late Iron Age – c.200-50 BC

- 6.2.14 This period is represented by material from practically every main trench and test-pit except the presumably deeper, Context 13-plus layers in Trenches 1, 3-4 and Test-pit 4, together with layers 3 and 2 from Test-pits 2 and 3 respectively. The good range of principally rims and a few bases are all utterly typical of the MLIA period from the eastern part of the region. These include fragments from everted-rim S-profiled fineware jars, some with good-quality shiny burnishes, several pedestalled foot-ring bases from the same, some near-vertical walled ‘saucepan’ pots and a range of thickened-rim coarseware storage and cooking jars with variably sub-beaded, upright or slightly everted rims. The latter are frequently finished on the rim top and internally with horizontal burnishing or smoothing which gives rims a distinctly faceted appearance. In addition, many of these coarseware vessels carry linear scars and angular grit-drag pits – the bi-product of surfaces being finished with harsh vertical or diagonal knife-trimming. One of these coarseware jars, large, thick-walled and provided with a slight inner-rim lid-seating groove cracked or broke in antiquity – and was repaired with resin glue. Fabrics are principally flint-tempered for both main vessel classes but sandy fabrics are often preferred for quality fineware jars – particularly those with good burnishes.

Other minority fabric types are also present – mixed-temper flint and grog, possibly non-local shell-tempered (one example only) and fine silty-sandy with sparse coarser inclusions. One of the latter, represented by a rather scrappy bodysherd, has been finished with fine vertical combing. Both the general fabric type and finish has good parallels from broadly contemporary MLIA assemblages from North Foreland, Thanet 1999 and a recent University of Leicester project at Ebbsfleet, Thanet (ULAS-EK16) – as indeed do many of the forms from the current and previous Dover Archaeological Group work in Worth. In addition, there are many good parallels from other regional sites – and the best published examples are from an enclosure at Church Whitfield (Thompson 2014, 145-156) dated to between c.150-50 BC. Without detailed inter-assemblage analysis and despite the current regional placing of the MLIA between c.200-50 BC (Morris 2006, Fig.3.2), the range of parallels between the current Worth material and that from Church Whitfield ensure a confident initial placement of between c.150-50 BC or slightly earlier for the above material.

- 6.2.15 However, what makes the current MLIA-type assemblage interesting is a small group of rims from Trenches 2-3 and Test Pit 4. They all share manufacturing trends that appear ‘sub-Belgic’ – a cluster of fresh unworn same-vessel sherds from a reasonably well-potted coarseware jar with rough horizontal combing, a strange little fineware-type jar with an upright rim and ripple-decorated shoulder and a wide-mouthed fineware bowl with an everted and internally bevelled rim. The first is flint-tempered, the second made in a silty fabric with fine organic tempering and the third in a mixed-temper flint and grogged fabric. The combed jar also has traces of continuous shallow horizontal finger-smoothing on its neck-upper shoulder zone which, together with its roughly combed finish, makes it reminiscent of true ‘Belgic’-style ripple-shouldered jars. However, its rim type, slightly beaded internally, slightly round-topped but with a slightly pointed everted externally, is atypical of standard ‘Belgic’-style forms. Amongst the latter, jars with ripple-moulded shoulders are normally fineware class vessels – not coarseware as here. Conversely, the little jar with upright rim and ripple-moulded profile (which includes the rim moulding) is a sub-fineware and rather crudely made. These two do not have any close parallels, to date. However, the curvaceous profile of the wide-mouthed bowl – can be paralleled with purely sandy, chalk-tempered and flint-tempered bowls from several sites – less closely at Bigberry (Thompson 1983, Fig.11, 74a, sandy), more appropriately at Church Whitfield (Thompson 2014, Fig.84, 23 and Fig.86, 60). Although all these are indigenous non-‘Belgic’ vessels, the grog component of the present bowl has a distinctly ‘Belgic’ appearance about it. In addition, its form is close to Thompson

1982 Type D1-4 bowls, except that here the rim profile is hooked externally and markedly and flatly bevelled internally.

- 6.2.16 All these vessels and their associated sub-‘Belgic’ characteristics look ‘primitive’ and should be early within the currency of that tradition. The initial arrival-date of that tradition is not firmly fixed but, indirectly on the basis of the dating applied to the Bigberry ‘Waterhole’ assemblage (Thompson op. cit., 255), could be placed somewhere between c.125-100 BC or slightly later. Allowing for a degree of time during which indigenous and incoming ‘Belgic’ styles interact, a manufacture date for most of these vessels between c.100-75, unlikely as late as 50 BC, is initially reasonable.

Late Iron Age – c.75/50-0 BC

- 6.2.17 There is a significant numeric fall-off in pottery of this date, compared with the preceding period – only 13 sherds. All are ‘Belgic’-style products – the majority in grog-tempered fabrics. The majority are vari-sized elements, mostly bodysherds in fairly soft low-fired fabrics but including two part-profile rim-shoulder sherds from Thompson 1982 Type B2-1 grog-tempered ripple-shouldered fineware jars (one each from Trench 2-3, Context 2 in each case) and a purely flint-tempered jar, roughly comb-finished horizontally and with an internally thickened rim from Trench 2 Context 2. It is recognised that dating pre-Conquest-period AD ‘Belgic’ material is difficult (pers. comm. Malcolm Lyne) and here, lacking any more defining dating evidence, these 3 vessels and the other bodysherds would normally only be placed, equally appositely, either broadly between c.75 BC-50 AD, or perhaps solely between 0-50/75 AD – depending on experience-based intuitive processes applied to the available evidence. However, recent work by Wessex Archaeology on the East Kent Access Phase 2 material (EKA II) and, personally, on a University of Leicester assemblage from Ebbsfleet, Thanet (ULAS-EK16) and other regional local LIA to LIA-ER assemblages – does indicate some potentially helpful signposts. A full discussion and associated rationale of these is not applicable here – but in brief, the as-currently recognised chronological span of the pre-Roman ‘Belgic’-style tradition can be divided into 3 main phases. Very simplistically -

- 6.2.18 An Early or ‘Primitive’ phase between c.125-75 BC (concurrent with the second half of the MLIA) - at present, this phase is epitomised best by the Bigberry ‘Waterhole’ assemblage (Thompson 1983, Figs.10-12) with its, compared to standard ‘Belgic’-style grog-tempered material, rather primitive forms. Technically standard types, such as ripple or corrugate-shouldered fineware vessels and beaded or everted-rim coarseware jars are present but some of the profiles are different and somewhat simpler – for instance the classic round-

topped and slightly undercut bead-rim jar is not really evident. During this phase, 'Belgic'-style material begins to be copied by indigenous potters in various fabric types including mixed-temper grog and flint. This initial emulation-phase is not chronologically 'tidy' and is likely to continue for a while into the next phase.

- 6.2.19 A Middle or 'Transitional' phase between c.75-0 BC – all main standard 'Belgic'-style forms as epitomised by Isobel Thompson's 1983 corpus - other than those that copy or are influenced by imported Gallo-Belgic types. In terms of local published assemblages, the late arriving grogged material from Church Whitfield (Thompson op.cit.) would fit here and, as dated there, between c.75-50 BC. During this phase, local indigenous potters begin to copy more faithfully forms made in the new incoming style, in purely flint-tempered or mixed-temper, grog and flint, and other fabrics.
- 6.2.20 A 'Developed' phase between c.0-75 AD – as the Middle phase for main standard forms but now including the copying of Gallo-Belgic imports - platters, butt beakers etc. Adoption of the new types depends upon how soon local, 'Belgic grog-using potters were encouraged to copy same, no earlier than c.15 BC, certainly between c.0-25 BC. The importation of nice tablewares, hard-fired and competently made on fast kick-wheels must have influenced local manufacturing trends quite quickly. Conquest-period AD 'Belgic-style assemblages frequently include neatly turned/finished vessels which have a noticeable tendency for harder-fired fabrics, compared with the general norm for 'Middle' phase or earlier material. There is no reason why this improved manufacturing trend should not have begun somewhat earlier than c.25 AD – and this whole phase has now been called the Latest Iron Age and placed between c.0-70 AD or slightly later (Seager Smith 2015, 203).
- 6.2.21 Applied to here, the reason that the small LIA component - including the two ripple-shouldered jars - is not automatically placed into the third, Latest Iron Age, phase is because of the contextual association of one of these jars with 'Primitive' phase material from Trench 3 Context 2. This context, and the late MLIA or Primitive' phase vessel from Test Pit 4 Context 4, had no later material. This may be no more than a localised discard trend within the accretion history of the Worth 'black band'. If it is not, then the apparent fall-off in sherd total for the LIA could indicate a significant lapse in activity. This point needs to be tested during an intended review of the material generated by the Dover Archaeological Group. For the time being, both ripple-shouldered jars have been placed cautiously between c.75-50 BC, possibly the second half of the first century BC.

Latest Iron Age-Mid Roman – c.0-250 AD

- 6.2.22 The ceramics for these three periods, increase slightly in quantity during the period 0-150 AD but decrease again during the Mid Roman period and, in line with the preceding LIA period, do not reach the numeric levels recorded for the Later Prehistoric phase. This decrease in the present evaluation zone is, compared with other evidence from within the Worth enclosure, to be due to differences in zone-based discard patterns rather than a true reflection of occupational intensity. Overall, the recovered material is rather mundane and principally recovered from upper sequence layers – Contexts 1 or 2.
- 6.2.23 Specifically – for the Earliest Iron Age (c.0-75 AD – all elements are bodysherds, some plain, some from comb-finished coarseware jars, mostly hard-fired and more likely to belong in this period than the LIA. The only alleviation is provided by a moderate-sized fairly unworn fragment from a red-surfaced and cordoned flagon of principally c.25-75 AD production date (from Test Pit 2 Context 1), together with one small worn scrap from a chaff-tempered vessel (associated with the salt trade) – and of broadly similar dating. The Early Roman period – c.50-150 AD – is represented principally by a range of Romanising native grog-tempered wares. Also by fragments from North Kent fine wares, mostly grey, one buff colour-coated, including shoulder sherds from a nicely-moulded little carinated tableware beaker (Monaghan 1987 Type 2G1) datable to between c.75-125 AD with conjoining elements between Trenches 1 and 3, Contexts 1. In addition, there is a scatter of non-Kentish imported wares represented by one unworn scrap of Flavian Southern Gaulish samian, several Dressel 20 amphora fragments and one from a white-slipped Dressel 28 amphora with a peak importation range between c.75-125 AD. The Mid Roman period – c.150-250 AD – is again principally represented by a few Romanised Native Coarse Wares sherds and several sandy ware elements – including one from a North Gaulish-type grey sandy ware vessel made in the ‘Arras’-style datable to between c.175-225 AD. Any evidence for activity later than c.250/275 AD was not recovered.

Post-Medieval – c.1625-1750 AD

- 6.2.24 Only two fairly small bodysherds of Kentish red earthenware, one each from Trenches 2-3, Contexts 2 and 1 respectively, represent later, post-Roman activity. One seventeenth century element is worn in a manner suggesting inclusion in agricultural manure, the other of c.1575-1750 AD date, is fresh – and could be a stray discard from the nearby village. Both are internally glazed, both are from kitchen or pantry vessels – and both are likely to be intrusive into their parent contexts.

6.3 Lithic Assessment

Introduction

- 6.3.1 A total of ten worked lithics (Note: An Addendum has been added to this assessment which initially detailed 4 flints, adding an additional six flints, see – 6.4), all flint, weighing a total of 167 grams, were recovered. All derived from a different evaluation trench or test pit. Only 2 had characteristics which offered a more reliable indication of their date. One, while likely to be of broad Later Neolithic to Early Bronze Age date, might more specifically be Earlier Beaker period, though caution is advised, for it shows no specific, reliable data. The other is a flake which is likely to be of Neolithic to Early Bronze Age date, but which has been retouched rather expediently around all its margins, the character of which has more in common with pieces of Lithic Later Bronze Age date (Middle Bronze Age to Earliest Iron Age and later). Whether the production of the flake and the tool use are contemporary (the traits combining to offer an Early Bronze Age date, perhaps), or the retouch is actually a result of re-use (more frequent in Lithic Later Bronze Age assemblages), is unclear. Two other pieces, simply utilised, are also present and though there is a possibility (and slight preference) that they could be a result of Lithic Later Bronze Age activity, such pieces could occur any period.
- 6.3.2 The underlying geology is considered to be of a type which generally inhibits the formation of those strong, obvious patinas which are frequently helpful in attempting to distinguish residual and re-used flintwork. Only one type of patina is present, the yellowy sheen variety, whose presence and strength is often difficult to gauge with certainty. It is also unclear at present how this patina type formed. The combination of all these factors means that the identification of residual and re-used material is and will be a significant issue for the flintwork recovered from this site.
- 6.3.3 The raw material from which all of the flintwork had been struck was of weathered buff cortexed types, which are common to areas of chalk and ‘brickearth’ geologies locally. Though the nature of the natural flint which is or would have been available on site or in the vicinity is unknown at this stage, it is likely that the raw material used for the flintknapped products recovered could have at least been available in the overburden above chalk which likely occurs nearby.

Methodology

- 6.3.4 A prime aim of this assessment of the lithics was to provide a useful catalogue that would combine a record of key characteristics (permitting a degree of preservation and some re-analysis by record), with individual spot-dating information and an overall comment on the flint content of the context and its implications. Each piece has been dated on its individual merits.
- 6.3.5 The artefacts were examined using hand lenses of x5 and x10 magnification and were catalogued on a context, type, character, weight (calculated to the nearest gram, with a minimum of 1g), condition and period basis. The catalogue is included as an Appendix for retention within the site archive. Within each context the artefacts have been listed first in order of type (waste, retouched, utilised) and then date (earliest to latest). No information about the character or stratigraphic relationships to other contexts was known, save where indicated by the context's titling. All dates given are circa.
- 6.3.6 Artefacts of potential interest for illustration, by photography and/or drawing, have been noted in the catalogue, but no artefacts have been drawn at this stage. Further illustration of additional flintwork may become useful, depending upon any subsequent identification of well-dated contexts which contain a collection of contemporary material.

Period-based review

Raw material

- 6.3.7 The specific character of the raw material from which the flintwork was made is noted within the catalogue and no discussion of raw material use by period phase is presented at this stage (also, the quantities recovered are minimal and no pieces of a reliably specific date are present as yet). Overall, the assemblage shows the use of raw material with a variety of thin, rough, dirty looking (weathered) buff cortexes, which could have been recovered from surface or overburden soil deposits. The matrix of the flint is of good or average (only moderately cherty) quality, in mixed patchy black and brown or black, grey and brown colours (the black colour often visually dominant).
- 6.3.8 The immediate underlying geology on this site is considered to have comprised a deposit of clay/silt/sand, with chalk outcropping at the southern end of Jubilee Road (British Geological Survey 2017). The former would typically have little or no inherent natural flint content. The specific character of the raw material which is or was available in the immediate vicinity of the site is also unknown at present, though local overburdens above chalk and 'brickearth'

would typically contain raw material of the types and colours seen in the flintwork recovered from this site. Thus the raw material used for the flintknapped products recovered could have been available locally and none needs to have been imported a significant distance.

Patination

- 6.3.9 The only type of patination present was a subtle yellowy sheen. This has been noted occurring on various sites with similar geologies across Kent. Its presence and strength is often difficult to gauge and how it forms is uncertain at this time, thus the implications of it are unclear. Perhaps a result of iron staining from the soil, one possibility is that they could be created within a wet, humic environment, potentially in standing water or a waterlogged soil formed as a result of an underlying clayey geology (see Winton 2004). If so, its presence cannot be seen as a reliable indicator that such patinated pieces are residual, for in-situ formation would presumably be possible. The patina has also been noted on an East Kent site which had a much more free-draining (sand) geology; thus uncertainty over its interpretation and whether pieces patinated such are significantly residual must remain for now. It is notable that no instances of chalk-soil type patinas were present on the struck flint. This suggests that, unless all of this material was swiftly and deeply buried following discard, the flintwork was deposited in areas which lacked a significant presence of chalk fragments (whether inherent in the soil or present as a result of marling) and did not directly overlay chalk bedrock. It should also be noted that (ongoing) experiments by Geoff Halliwell have shown that the occasional bi-monthly freezing and thawing of flint within rain water can produce the early stages of this patina in some types of flint after a period of 2 years (Halliwell pers. comm.). A natural form of this process could thus be responsible for some early stage chalk-soil type patinas seen on both chalk and non-chalk geologies. Its absence here could indicate that the flintwork had not seen any extended period of exposure to such conditions.

Dating

- 6.3.10 Only 4 pieces were recovered and the flintwork contains little specific/reliable data. While noting this, it is likely however that the evidence represents Prehistoric activity which need date no earlier than the Neolithic and 2 broad phases of activity (of Neolithic to Early Bronze Age and possibly Lithic Later Bronze Age date) could be present. The contexts which show evidence of these activities are listed below on a period basis. The text contains further information, if required. Additional detail can be gained from the catalogue (see the Appendix).

Neolithic to Early Bronze Age (4000 to 1550 BC)

Elements probably residual or re-used in: Tr 3 {1 (circled)}.

- 6.3.11 A flake likely to be of this date was the sole piece recovered from Trench 3. It shows retouching for tool use which, in its extensive (all margins), varied (directions and edge angles) and marginal (edge only) manner of execution, resulting in a very uneven profile, is perhaps more akin to that seen on pieces of later date. Some Lithic Later Bronze Age scrapers occasionally show extensive retouch of this character, forming what could be separate, though physically linked, working edges. Instances of Middle Bronze Age and Earliest Iron Age date have been noted in local assemblages (see Hart 2016) and though not a particularly frequently occurring type, the style of production would appear to have more in common with the traits of Lithic Later Bronze Age assemblages than those of Neolithic date. The flake shows a subtle yellowy patina, though whether the majority of the retouch scars are also patinated is difficult to gauge. Two phases of activity, comprising Lithic Later Bronze Age re-use of a Neolithic to Early Bronze Age flake, could be evidenced by this piece, but this is unclear. If the tool use is contemporary with the flake's production, then a combination of the traits could suggest that a date late in the flake's range (ie. perhaps Early Bronze Age) may be more likely, though a two-phase scenario is slightly preferred at present. The patina could of course have formed post any subsequent phase of re-use. Ultimately and unfortunately there is little specific clarity in this evidence, save that a flake whose striking represents activity more likely no later than Early Bronze Age in date is present.

Later Neolithic to Early Bronze Age/?Earlier Beaker (3200/2500 to 2000/1550 BC)

Elements probably residual in: Tr 2 {1 (circled)}.

- 6.3.12 The sole piece recovered from Trench 2 was a medium sized, thick, decent looking short flake, retouched rather simply across its distal end (forming a shallow angled convex edge; possibly functioning as an end scraper). It could date very widely, though there is a preference for a broad Later Neolithic to Early Bronze Age date and, within that, an Earlier Beaker period date is possible, given its character. There is no specific data however and caution is advised. Unless its context is of special circumstance perhaps, its solo status could indicate it is more likely to be residual, though it does appear relatively fresh and unpatinated and it may not have been substantially moved or disturbed from its original place of deposition. The nature of this context is unknown, though presuming it is the same as that which is producing flintwork in Trenches 3 and 4, if this is a subsoil, perhaps a hillwash deposit if the topography

permits, the relative depths of these finds may offer some data on the timing and evolution of such a deposit and also on the chances of potential relationships (or otherwise) within.

?Lithic Later Bronze Age (Middle Bronze Age and later; 1550 to 600+ BC)

Elements with relationship to context unclear, but potentially residual as sole recoveries in:

Tr 3 {1 (circled)}, Tr 4 {1 (circled)}, TP 3 {2 (circled)}.

- 6.3.13 The flintwork from Trench 3 has been discussed further above. Trench 4 produced a largeish broad, thick butted flake, simply struck and probably simply utilised (without retouching). Test Pit 3 contained a medium sized, thick butted flake, also utilised. Both of these had broad cortexed platforms (though of different cortex types) and slight breaks. No reliable dating data is present, though it is just possible that both these pieces could be a product of a late industry of expedient, casually struck and simply utilised character, ie. Lithic Later Bronze Age. This is highly speculative however and such flakes could be produced and utilised in any period; noting particularly that in some local Lithic Later Bronze Age assemblages the flintwork is more frequently of much smaller size (and perhaps increasingly so through time; see Hart 2016), though occasional larger flakes do occur. Consideration should be given as to whether there is any pottery of Lithic Later Bronze Age date present to which this flintwork could potentially be associated. Note however that, due to the nature of the underlying geology and the patina type present, no associations are guaranteed.

Recommendations

- 6.3.14 Only 4 pieces were recovered. These have been detailed within the catalogue and no further work is suggested at this time. If a further stage of excavation is conducted, the flintwork from the evaluation can be combined with any from the excavation and recommendations which cover all can be made in a subsequent flint assessment report.
- 6.3.15 From this current stage of work however, the only notable pieces present are the 2 retouched tools from Trenches 2 and 3. If these pieces can be reliably associated with contemporary pottery, then an illustration and/or note of these pieces in any forthcoming final site report could provide data useful in future comparisons with similar material from the region.
- 6.3.16 It is also suggested that, in the event of a further stage of excavation, it would be useful if the fieldwork team could also collect a sample of the natural flint which is occurring within the underlying geology (if any) and the overburden. This data would help to inform opinions on the sources of the raw material used for the flintwork recovered.

Illustrations

- 6.3.17 These could comprise photographs if all relevant detail can be satisfactorily highlighted or indicated (i.e. as in the case of areas of small sized or fine retouch); otherwise drawings would be required if these details are of particular diagnostic significance. In this instance however it is currently considered that little useful diagnostic detail would be lost by using a photograph, particularly when combined with a written description as detailed in the catalogue. A drawn illustration would provide greater technical clarity for inclusion within a final report, though a photograph can give a better presentation of overall visual character, which could prove generally satisfactory (and perhaps more instructive regarding future initial comparisons) in most instances.

6.4 Addendum

- 6.4.1 Subsequent to the completion of an assessment report (Hart 2017 – above) on the small number of flints recovered during an archaeological evaluation at the above site, an additional 6 flints, weighing 978g, were presented for brief comment. The collection is unusual, given that most are large or very large flakes (sometimes crude looking, a couple better struck), with no small flakes present. All have been either simply utilised or intentionally retouched for use as tools. One battered and patinated flake, struck from weathered buff cortexed flint, likely available locally, may be residual to some degree, though it need not significantly pre-date the rest. The others, while probably showing a subtle yellowy sheen patina, appear otherwise relatively sharp and fresh. These derive from large nodules, those with remnant cortex showing smoothing which suggests the raw material had been water-rolled prior to use. The nature and relationships of their contexts is unknown, though the similarities in the raw material, size and condition of this fresher looking material suggests that they have the potential to be contemporary with their contexts and each other.
- 6.4.2 No reliably specific dating data is present, though if this is a representative sample, then the unusual composition and combined characteristics of the potentially related material does lead towards an impression that it could relate to the significant activity of perhaps Middle Iron Age to Late Iron Age date, or slightly later, which is known to occur in the immediate vicinity (see KCC 2017). This is highly speculative however and the context of these finds and their distribution needs to be considered. Some of the simpler, cruder pieces could easily be debitage struck in the process of reducing large flint nodules, perhaps for construction purposes. If so a Roman or Medieval date is possible for these, though whether there is a local precedence for such material to also show expedient utilisation as tools is unknown at

present. It is this use, with consistent damage present across broad areas of the flake's edges, which might make a Historic date less likely. Two better looking flakes show intentional retouch for use as tools and, presuming somewhat that this technique is also less likely to have significantly outlasted the Prehistoric (a minor degree of the use of flint for toolmaking is known in the Roman period, from elsewhere), this leads to the very Late Prehistoric date for this potentially related group which is initially preferred on the current, limited, evidence.

6.4.3 Caution is advised however, considering also that the utilised and the retouched flintwork need not be contemporary (it is difficult to certainly identify residual material on this site as a result of the underlying geology; see Hart 2017), though as stated above the similarities do suggest that this could well comprise a mostly related group. If these flint tools can be certainly related to the very Late Prehistoric or Roman activity known in this area, their presence and their character (with the use of large thick flakes dominant, being quite unlike some other collections of Lithic Later Bronze Age (i.e. Middle Bronze Age to Earliest Iron Age) flintwork seen locally), is notable.

6.5 Faunal Assessment

6.5.1 An assemblage of 634 bones and 33 loose teeth weighing 17.06kg. Cattle, Horse, Pig, Sheep and Dog are represented in bone and teeth. Long bone fragments were assigned by size to small, medium and large mammal as were unidentifiable fragments and rib fragments. Taxa and bone by context is attached (Appendix 1). Taxa by bone, side and fusion data is appended hereto (Appendix 1). Measurements were taken of 78 bones (Appendix 1). Bone preservation was reasonable in the majority of contexts.

	CONTEXT						
Comment on Bag	1	2	4	15	17	-	Total
TP2	67	72					139
TR1			5				5
TR2 [16]				22			22
TR3	10	48					58
TR4	58						58
TR4 [18]					5		5
Trench 1	294	42					336
Trench 1 - 4 in [5]			9				9
Trench 2		3				17	20
Trench 3	10						10
Trench 4 House	5						5
Total	444	165	14	22	5	17	667

Table 2 Total No. of bone/teeth recovered by trench and context.

6.5.2 A table of taxa and bone to context is appended to this report (Appendix 1).

Cattle

- 6.5.3 Cattle was represented by 82 bone/bone fragments and 11 teeth. The majority of the bone had been butchered, with only the metapodials and phalanges largely complete. Calculation of withers height using the greatest length of the metacarpal indicates a height of 108.03cm. Proximal fusion of the humerus is complete by 4 years of age whilst the distal fusion is complete by 18 months of age. Distal fusion of the metacarpal by 30 months and the metatarsal by 36 months.

Horse

- 6.5.4 Horse was represented by 16 bones and 3 teeth. Two metacarpals were complete and withers heights of 11.69 hands and 12.44 hands were calculated. A complete metatarsal gave a withers height of 11.71 hands. Only the distal part of the tibia was present. Left and right side scapula were identified but both were largely fragmented. Other than the scapula, no meat bearing skeletal elements were noted. Distal fusion of the metacarpal is complete by 18 months of age.

Pig

- 6.5.5 17 bones and 2 single teeth were identified as pig. Other than 3 fragmented scapula, and the unfused proximal end of a femur, no meat bearing elements were identified for this species, suggestive of butchery on site and consumption elsewhere. A single metatarsal (MTIV) was identified; distal fusion is complete in the species by age 27 months. Fusion had not commenced in this instance.

Sheep

- 6.5.6 81 bones and 8 loose teeth were identified as sheep. Distal fusion of the humerus in this species is complete by age 10 months. Distal fusion of the tibia is complete by about 24 months and that of the radius by 36 months.

Dog

- 6.5.7 Dog was represented by 12 bones. From measurement of a complete tibia the animal would have stood 46.63cm at the withers. Proximal fusion of the tibia is complete by age 18 months.

Discussion

- 6.5.8 66.56% of the bone was recovered from Trench 1. As stated above the majority of the assemblage had been butchered (chopped); most long bones only represented by either the proximal or distal extremities, or just the shaft.

- 6.5.9 No meaningful MNI (Minimum Number of Individuals) can be calculated on an assemblage of this size, although based on calculation of height using metacarpal and metatarsal, it would

appear the remains of at least 2 horses are present in the assemblage. Whilst the main long bones (humerus, radius, femur and tibia) present in numbers, none are complete and no assumptions can therefore be made.

- 6.5.10 Again, age at death on a small sample such as this is not meaningful. All that can be assumed is that, where it could be calculated based on complete fusion evidence, the animals were killed or died after that age. With the majority of the main meat bearing elements largely absent, and the butchered condition of the bone present, it would suggest a slaughter/butchery area with food preparation and consumption elsewhere. Some of the bones were likely smashed to extract the marrow within. Although dog is present, it is unlikely this was for human consumption.

7 ENVIRONMENTAL

7.1 Introduction

- 7.1.1 This report will describe the contents of whole earth 'bulk' soil samples for flotation taken during an evaluation in January 2017 revealing archaeological remains dating from Early-to Mid Iron Age (c.600 to c.300 B.C.) provisionally interpreted as buildings and occupation deposits (Allen 2017).

- 7.1.2 Six samples were recorded as being taken during excavations by Swale and Thames Archaeological Survey Company (SWAT Archaeology).

- 7.1.3 This report will assess the type and quality of preservation of organic remains in these samples and consider their potential and significance for further analysis.

7.2 Method

- 7.2.1 Sampling was carried out by the SWAT Archaeology team and appears to have been a combination of judgement and stratigraphic sampling.

- 7.2.2 The samples were processed using a recycling flotation tank with a 1mm mesh for the residue and 250-micron mesh sieve for the flot and were processed by S.W.A.T. staff.

- 7.2.3 195 litres of soil were sampled that were made up of three 40 L bulk samples and three total feature fills/deposits (Allen 2017). The processing records show that a much smaller quantity of soil was processed than was taken (see Table 3, Appendix 2). The reasons for this are unknown to the author at the time of writing.

- 7.2.4 After processing the residue and flots were air dried. Once with the author the residue was sorted (larger fraction by naked eye and smaller fraction in der a microscope) and the flots were scanned under a low powered stereo-microscope with a magnification range of 10 to 40x. The whole flots were examined. The abundance, diversity and state of preservation of eco- and artefacts in each sample were recorded. A magnet was passed across each residue and flot to record the presence or absence of magnetised material or hammerscale.

7.3 Results

Biases in Recovery, Residuality and Contamination

- 7.3.1 No information about biases in recovery, residuality or contamination at the time of writing. After processing it was clear that bioturbation was likely with modern root/rhizome fragments being abundant in all samples. Faunal bioturbation was also present (see Table 5 in Appendix 2). Terrestrial mollusca were found in low to abundant numbers in each sample and the shells of the burrowing snail *Ceciliodes acicula* Müller were found in all samples apart from sample <4>. >). This snail burrows well below the ground surface (Kerney & Cameron 1979, 149) and can be indicative of bioturbation and oxygenation of the soil.
- 7.3.2 Conditions like these tend to provide preservation conditions best suited to robust plant material such as those evident here, charred plant remains and uncharred plant remains with robust testas.

Quality and Type of Preservation

- 7.3.3 Plant macro-remains were preserved by charring. Charring of plant macrofossils occurs when plant material is heated under ‘...reducing conditions...’ where oxygen is largely excluded (Boardman and Jones 1990, 2) leaving a carbon skeleton resistant to biological and chemical decay (English Heritage 2011,17). These conditions can occur in a charcoal clamp, the centre of a bonfire or pit or in an oven or when a building burns down with the roof excluding the oxygen from the fire (Reynolds, 1979, 57).
- 7.3.4 The dried waterlogged/desiccated seeds were present only as testas and endocarps so could be archaeological but they could also be intrusive from more recent contexts.
- 7.3.5 No mineralised or waterlogged plant remains were found.

The Plant Remains - The Charred Plant Macro-Remains

- 7.3.6 Low numbers (<10) of charred cereal grains were found in samples <1>, <2>, <3> and <6>. These were mostly poorly preserved or in fragments. One well-preserved emmer (*Triticum*

dicocum) grain was found in samples <2> post pit fill (4). The other grains resembled wheat (*Triticum* sp.) grains. One small-seeded legume cotyledon (*Vicia/Pisum/Lathyrus* sp.) was found in sample <3> and one seed of the ruderal plant lady's bedstraw (*Galium verum*) was found in sample <4>. Charcoal of identifiable size were found in samples <1>, <2> and <3>.

The Plant Remains - The Dried Waterlogged Plant Remains

- 7.3.7 These are probably intrusive but consist of low numbers of seeds of the ruderals fat hen (*Chenopodium album* L.) and elderberry (*Sambucus nigra* L.) and segetal annual mercury (*Mercurialis annual* L.)

The Faunal Remains

- 7.3.8 This is not a zoo-archaeological report. Quantities and apparent diversity will be commented on here. Any identifications should be considered provisional until examined by a zoo-archaeologist. All faunal remains will be made available to relevant specialists and have been tabulated in the Appendix (Table 5, Appendix 2).
- 7.3.9 Unburnt bone fragments were present in each sample. These were fragments of large mammal bone and small mammal/amphibian bone. Fragments of charred bone were found in samples <1> , <2> and <3>.
- 7.3.10 Terrestrial mollusca were found in each sample with *Ceciliodes acicula* Müller in each.

Artefactual

- 7.3.11 This is not a finds report. Details are given in the Appendix (table 5). Finds are found in environmental samples so they have been recorded here and prepared to be delivered to the appropriate specialists.
- 7.3.12 Potsherds/scorched daub were found in samples <1>, <2>, <4> and <6>. Burnt flint and magnetic material were present in each sample. On fragment of spherical hammerscale was found in sample <1>. Sample <4> contained fragments of slag.

7.4 Significance, Potential and Recommendations

- 7.4.1 The charred plant remains in these samples are very low in number relative to sample size and generally poorly preserved. This suggests that they are general background waste. The emmer grain is typical of Iron Age assemblages in the south of England (Jones 1981, 106) but it would need to be radiocarbon dated to be sure. This is because durable charred plant remains survive being moved between contexts by human action and bioturbation so cannot

be properly interpreted unless radiocarbon dates are gained from the plant macro-remains themselves (Pelling *et al.* 2015, 96).

- 7.4.2 No further archaeobotanical work recommended on these samples because of the abraded nature of the small charred plant remain assemblages and the likelihood that the desiccated seeds and probably the charred seeds are intrusive.

7.5 Acknowledgements

- 7.5.1 Thanks are due to Dr Paul Wilkinson for provision of background information and for access to the site archive.

8 DISCUSSION

8.1 Archaeological Narrative

- 8.1.1 The evaluation took place on a site of high archaeological potential, with previously excavated remains having been designated as a Scheduled Ancient Monument designated to be of national importance. The narrative below should be considered in that context.

- 8.1.2 Overall, significant archaeological features and deposits were encountered beneath agricultural/garden soil as depths of between 0.6m and 0.74m, with the uppermost significant deposit consisting of a potsherd- and animal bone-rich occupation layer with an average thickness of 80mm. This deposit, which was present in all four trenches, also produced large quantities of animal bone, along with Early-to-Mid Iron Age, Late Iron Age and Early-Mid Roman-period potsherds, all almost certainly re-deposited having been dislodged from their original context during ploughing. However, it was noticeable that of the 179 potsherds recovered from this deposit, a much higher proportion of wares dating to the later period of AD c. 50 – c. 200 were present. The anomaly of 97 sherds attributed a date-range of c. 600 – c. 300 BC recovered from this deposit in Trench 3 can almost certainly be attributed to the subtly graduating boundary between this deposit and the underlying occupation layer (CRN 2).

- 8.1.3 Within Trench 1, underlying CRN 1, was a compact layer of crushed chalk, interpreted with confidence as part of a deliberately laid internal floor, as chalk erodes and washes away very quickly if exposed to the elements. Supporting this interpretation was an overlying mound-like deposit of burnt daub and finely crushed chalk (the feature as a whole interpreted as a hearth or fire site) and a large, flat-based post pit, which cut down through the chalk layer. Taken together, it is proposed that these remains were associated with a building, possibly a

round house, although a more definite identification could not be made given the small area of exposure. The potsherds derived from the post pit and overlying occupation layer (which may not have been contemporary with the use of the building) provided a date-range of c. 200 to c. 150 BC. An earlier occupation deposit consisting of the re-worked and/or tread-disturbed surface of the natural brickearth immediately underlay the chalk layer and was also identified in Trenches 2, 3 and 4, all lying to the west. The 223 datable potsherds from this supplied a date-range of c. 600 BC to c. AD 75/100, but the great majority had an Early/ Mid and Mid Iron Age date-range of c. 600 – c. 300 date-range, during which the settlement appears to have been founded, with occupation activity then continuing throughout the later Iron Age and into the Mid Roman period.

8.1.4 In most of Trench 2 and in all of Trenches 3 and 4, the lower archaeological horizon as described above was separated from the upper bone/potsherd-rich occupation layer by a band of dark brown humic soil of up to 0.34m thickness, indicating that the two horizons were both chronologically as well as spatially separated, with two phases of occupation/settlement activity therefore being represented. Associated with the lower horizon was a small bowl-shaped pit of unknown function and another hearth-like mound of mixed scorched daub and finely crushed chalk (possibly a hearth), along with a large shallow, flat-bottomed linear depression, the basal surface of which was covered with flint cobbles. Its only exposed edge, exposed in Trench 2, suggested that this feature was north-west/south-east aligned. Investigatory test pits showed that the flint-cobbled surface was also present in the northernmost part of Trench 3 and the southernmost part of Trench 4, the evidence overall suggesting that it was a flint-cobbled trackway. Again, potsherds from the immediately overlying deposits dated this feature to the broad Early-Mid and Mid Iron Age (c. 600 BC – c. AD 150).

8.1.5 As previously stated, the two archaeological horizons discussed above pointed to at least two phases of intensive Early-Mid and/or Mid Iron Age settlement/occupation activity, with the lower occupation layer seemingly associated with the primary occupation of the site, or at least this part of it, almost certainly during the Early/Mid Iron Age, probably between c.600 and 300 BC. The upper occupation layer, which extended across nearly all the evaluated part of the site, contained very large amounts of fragmented pottery (523 sherds) and butchered animal bones, along with frequent large struck flints, most crudely worked to create a cutting edge. Given their association with large quantities of butchered bone it is proposed that the flints had been sharpened to butcher the many carcasses from which the skeletal remains derived.

8.1.6 The very large amount of fragmented pottery, animal bone and crudely worked flint in the upper occupation layer and the degree of that layer's extent and thickness are of high interpretive significance in respect of the important Late Iron Age/Early Roman period site previously excavated a short but not accurately ascertainable distance to the west. Most of that investigation focused on a so-called Romano-Celtic temple (more properly termed a Romano-British temple) overlying Late Iron Age remains. Clearly the settlement was founded significantly earlier than was originally thought and recent excavations carried out by the University of Leicester have confirmed that extensive Iron Age earthworks/settlement is present.

8.1.7 The evidence exposed during the present investigation have indeed confirmed that the site and its surrounds were occupied by a large Early-to-Mid Iron Age settlement, eventually becoming part of a Romano-British temple site. The kinds of material present within the upper occupation layer suggests that during this period this part of the settlement, was used primarily during the Iron Age for rubbish disposal. It can also be proposed that, on the basis of the sheer quantity of domestic detritus recovered from just four closely placed trenches, the settlement's inhabitants were both numerous and prosperous, at least in terms of livestock, with bones from all the main domesticates, horses, pigs, cattle, sheep and dog, all being present.

8.2 Overview

8.2.1 The evaluation demonstrated that archaeological remains with a predominantly Early-to Mid Iron Age date-range of c. 600 to c. 300 were present on the site at depths of between 0.6m and 0.72m below the present ground surface.

8.2.2 The remains, amongst which were parts of a probable building or buildings, a flint-cobbled trackway and two occupation deposits, almost certainly comprised the remains of the same settlement, albeit during an earlier period of occupation, exposed to the west, suggesting that a long-lived Iron Age settlement of considerable size occupied the general area. It is likely that the settlement benefitted from its location close to established routes in terms of trade and communication. The ceramic evidence clearly indicates that the settlement preceded the onset of the conventionally termed 'Belgic' period (c. 150 BC), which saw the introduction of the potters wheel and continued well into the Mid Roman period.

8.2.3 The adjacent Scheduled site was originally characterised as a Romano-Celtic temple site on the basis of the reductionist invasion theory-based interpretative methods that characterised

nineteenth- and early twentieth-century antiquarians and archaeologists. However, subsequent investigations, including the present work, suggest a different interpretation, that being that the two-phase Roman-period temple previously discussed was probably the successor to an earlier ritual structure set within a well-established, extensive and long-occupied Iron Age settlement. The shrine/temple may have been rebuilt using Roman-style building methods because it had become dilapidated or simply to modernise it, rather than as a direct result of the Claudian invasion of AD 43. The structure in its Iron Age phase almost certainly formed a focal point for an extensive and probably important Early-Mid and Late Iron Age coastal settlement. Such shrines of Iron Age date are relatively well known, usually consisting of small rectangular, often sunken-floored structures surrounded, usually at some distance, by round houses (Grimes, 1948, 74; Alcock, 1970, 14-25; Brooks and Bedwin, 1989, 9; Downes 1997, 145-151). A similar Kentish example was exposed near Whitstable in 1998 (Allen and Wilson 2001, 6-7).

8.2.4 The presence of Iron Age settlement within and around the site is indicated by the presence of domestic rubbish (potsherds, crudely worked flint and animal bone of cattle, horse, dog, sheep and swine) recovered from nearly all deposits overlying the primary occupation horizon removed manually. Such a large amount of such material recovered from the relatively small volume of the deposits removed by hand (approximately 11m³) during the investigation points to the intensive and/or protracted occupation activity on or near the development site. Perhaps more indicatively, a disproportionately large quantity of the animal bone and potsherds was recovered from the uppermost occupation layer (CRN 2), which was exposed in all four trenches. This layer was stratigraphically and chronologically separated from the primary occupation horizon, its presence therefore suggesting that this part of the settlement was used for rubbish disposal, effectively as a midden, during the Early-Mid Iron Age and later. This probably followed the abandonment of the dwellings, the presence of which was indicated by the structural remains exposed in Trench 1.

8.2.5 It is evident from the results of the evaluation that significant archaeological remains are present within the proposed site. It is considered high likely that these remains have associations with known Iron Age settlement within the surrounding area. It is therefore recommended that any future archaeological works, should they be deemed necessary, takes into consideration the wider archaeological landscape, in particular the major Iron Age site and ditched enclosure.

8.3 Conclusions

- 8.3.1 The archaeological evaluation has been successful in fulfilling the primary aims and objectives of the Specification. Development proposals, which comprise the construction of new housing and associated services/landscaping, are likely to impact on archaeological remains. Further archaeological mitigation, should it be necessary, will need to be determined in consultation with the Kent County Council and local planning authority.
- 8.3.2 This evaluation has, therefore, assessed the archaeological potential of land intended for development. The results from this work will be used to aid and inform the Senior Archaeological Officer (KCC) of any further archaeological mitigation measures that may be necessary in connection with any future development proposals.

9 ARCHIVE

9.1 General

- 9.1.1 The Site archive, which will include; paper records, photographic records, graphics and digital data, will be prepared following nationally recommended guidelines (SMA 1995; ClfA 2009; Brown 2011; ADS 2013).
- 9.1.2 All archive elements will be marked with the site/accession code, and a full index will be prepared. The physical archive comprises 1 file/document case of paper records & A4 graphics

10 ACKNOWLEDGMENTS

- 10.1.1 SWAT would like to thank Caroline Bayman for commissioning the project. Thanks are also extended to Ben Found, Senior Archaeological Officer, Kent County Council, for his advice and assistance.
- 10.1.2 Tim Allen (MCIfA) supervised the archaeological fieldwork; illustrations were produced by Bartek Cichy. Tim Allen produced the draft text for this report which was edited by David Britchfield (MCIfA). The project was managed by Dr. Paul Wilkinson (MCIfA).

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12 APPENDIX 1 – SPECIALIST ASSESSMENTS (ADDITIONAL DATA)

12.1 Context-related spot dates for the assemblage

Trench 1

Context: 1 – 32 sherds (weight: 474gms)

4 EMIA>MIA flint-tempered ware (c.600-300/200 BC emphasis probably)

7 LP flint-tempered ware (EMIA>MLIA preference, c.600-200/50 BC emphasis for most)

3 MLIA flint-tempered ware (c.200/150-50 BC emphasis)

1 MLIA flint-tempered sandy ware (c.200/150-50 BC emphasis probably)

1 MLIA fine sandy ware (c.200/150-50 BC emphasis)

2 LIA 'Belgic'-style grog-tempered ware (c.50 BC-25/50 AD emphasis probably)

4 LIA-ER 'Belgic'-style grog-tempered ware (c.25-50/75 AD emphasis)

3 ER Romanising native grog-tempered ware (c.50-75/100 AD emphasis probably)

2 ER North Kent fine grey ware (Monaghan 1987 Type 2G1 carinated beaker, c.75-100/125 AD emphasis; same vessel = Context Tr.3 1, conjoins)

1 ER North Kent fine buff ware (colour-coated flagon, c.75/100-150 AD emphasis probably)

2 ER Romanising native grog-tempered ware (c.75/100-125 AD emphasis)

2 ER Romanising native grog-tempered ware (c.100/125-150 AD emphasis)

Comment: Mostly small-moderate sized elements, latter predominating, and 2-3 fairly large LIA or LIA-ER elements. Earlier material tends to be smaller and marginally more worn than LIA or Conquest-period AD material, ER elements, although small or moderate-sized as well, are near-fresh.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.150 AD

Context: 2 – 84 sherds (weight: 1655gms)

9 EMIA>MIA flint-tempered ware (some rusticated, c.600-350/300 BC emphasis probably)

2 EMIA>MIA flint-tempered sandy ware (c.600-200 BC range probably)

14 LP flint-tempered ware (EMIA>MLIA preference, c.600-200/50 BC emphasis for most)

2 LP flint-tempered sandy ware (EMIA>MLIA preference, c.600-200/50 BC emphasis)

1 LP flint and organic-tempered ware (EMIA>MLIA preference, c.600-200/50 BC emphasis)

1 MIA>MLIA flint-tempered sandy ware (c.300-200/50 BC emphasis probably)

7 MLIA flint-tempered ware (c.200/150-50 BC emphasis)

1 MLIA flint-tempered sandy ware (c.200/150-50 BC emphasis)

1 MLIA fine silty ware (c.200/150-50 BC emphasis probably)

1 MLIA organic-tempered fine silty ware (c.200/150-50 BC emphasis probably)

1 MLIA fine sandy ware with sparse flint (c.200/150-50 BC emphasis probably)

1 MLIA>LIA flint-tempered ware (c.100/50 BC-50 AD emphasis possibly)

1 LIA-ER 'Belgic'-style grog-tempered ware (c.25/50-75 AD emphasis probably)

Comment: Mostly small-moderate sized elements, latter predominating, some fairly large.

Pre-MLIA material tends to be more worn than MLIA sherds which are frequently fresher or near-fresh. Later elements fairly small, fairly fresh – and need not be intrusive.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.75/100 AD

Context: 4 – 2 sherds (weight: 15gms)

2 MLIA flint-tempered ware (c.200/150-50 BC emphasis)

Comment: Small elements, fineware bodysherds, near-fresh – could be from an undisturbed contemporary deposit.

Likely commencement date: Nothing obviously earlier than c.200/150 BC

Likely end-date: Nothing obviously later than c.50 BC – context between c.150-50 BC

Context: 13 – 1 sherd (weight: 26gms)

1 EMIA>MIA flint-tempered ware (c.600-200 BC range; has splashes of red paint internally)

Comment: Moderate-sized fineware bodysherd, rather chipped and edge-worn.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Probably residual

Context: 15 – 43 sherds (weight: 750gms)

15 EMIA>MIA flint-tempered ware (10 rusticated, c.600-350/300 BC; 1 = TP2 Context 3)

28 EMIA>MIA flint-tempered ware (c.600-300/200 BC)

Comment: Mostly small-moderate sized elements, a few fairly heavily worn, most moderately worn. One more typically MIA-type coarseware rim (c.350/300-200 BC) may be intrusive into a predominantly EMIA assemblage – initially - c.600-400/350 BC.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.200 BC

Trench 2

Context: 2 – 42 sherds (weight: 970gms)

14 EMIA>MIA flint-tempered ware (rusticated, c.600-350/300 BC emphasis; 3 same vessel)

12 EMIA>MLIA flint-tempered ware (c.600-200/50 BC emphasis for most)

6 MLIA flint-tempered ware (c.200-50 BC range)

1 MLIA flint-tempered ware (c.125/100-50 BC emphasis)

1 LIA 'Belgic'-style flint-tempered ware (combed, c.75/50-0 BC emphasis probably)

2 LIA 'Belgic'-style grog-tempered ware (Thompson 1982 Type B2-1 ripple-shouldered jar, c.75/50-0 BC emphasis probably)

1 LIA-ER 'Belgic'-style grog-tempered ware (c.0-50/75 AD emphasis probably)

1 ER Southern Spanish Dressel 20 amphora (c.50/75-150 AD emphasis probably)

2 ER North Kent fine grey ware (Monaghan 1987 Type 2G1.5, c.75-100/125 AD emphasis; same vessel)

1 ER Kentish pink-buff fine sandy ware (flagon probably, c.100-150/175 AD emphasis)

1 PM Kentish red earthenware (c.1675-1725/1750 AD emphasis; intrusive)

Comment: Mostly small-moderate sized elements but 3 EMIA same-vessel rim sherds freshly broken from an originally large element. Earlier material mostly, but not always, more worn than later MLIA assemblage-component.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.150/175 AD

Trench 3

Context: 1 – 188 sherds (weight: 4281gms)

50 EMIA>MIA flint-tempered ware (rusticated, c.600-350/300 BC emphasis)

47 LP flint-tempered ware (EMIA>MLIA preference, c.600-200/50 BC emphasis for most; 1 re-fired, possibly associated with salt-boiling)

4 LP flint-tempered sandy ware (EMIA>MLIA preference, c.600-200/50 BC emphasis for most; 2 same vessel)

7 MIA flint-tempered ware (c.400-300/200 BC emphasis probably; 2 x same vessels incl. 1 fineware base with wide foot-ring and red-finish)

7 MIA>MLIA flint-tempered ware (c.300-200/50 BC emphasis probably)

8 MIA>MLIA flint-tempered sandy ware (c.300-200/50 BC emphasis probably; 2 same vessel)

29 MLIA flint-tempered ware (c.200/150-50 BC emphasis; 2 x same vessels)

1 MLIA flint-tempered sandy ware (c.200/150-50 BC emphasis)

4 LIA 'Belgic'-style grog-tempered ware (2 with sparse flint, c.50 BC-25/50 AD emphasis probably)

10 LIA-ER 'Belgic'-style grog-tempered ware (c.0-50/75 AD emphasis probably)

1 LIA-ER chaff-tempered ware (c.25/50-75 AD emphasis probably)

- 1 ER Southern Spanish Dressel 20 amphora (condition and size suggests a mid-later C1 AD acquisition)
- 7 ER Romanising native grog-tempered ware (c.50-75/100 AD emphasis for most; 3 same vessel)
- 2 ER North Kent fine grey ware (Monaghan 1987 Type 2G1 carinated beaker, c.75-100/125 AD emphasis; same vessel = Context Tr.1 1, conjoins)
- 4 ER Romanising native grog-tempered ware (c.75-100/125 AD emphasis)
- 1 ER Kentish buff-pink moderately sandy ware (flagon, c.75/100-150 AD emphasis)
- 2 ER Romanising native grog-tempered ware (c.100-125/150 AD emphasis)
- 3 MR grog-tempered Native Coarse Ware (1 lightly scorched, c.150-175/200 AD emphasis probably)
- 1 MR North Gaulish-type grey sandy ware ('Arras' style, c.175-225 AD range probably)
- 1 MR fine sandy ware (knife-trimmed, lightly scorched, c.175-225/250 AD emphasis probably)
- 1 PM Kentish red earthenware (c.1625-1650/1675 AD emphasis; intrusive)

Note:

1, possibly MLIA>LIA silty ware with sparse-moderate organic inclusions (form is cf. Thompson 1982 Type B2-4 jar) but, less likely, could be EMS. Vessel is crudely made – if the prehistoric allocation is correct a date between c.75-50/25 BC is applicable – the dating allows for the 'Belgic'-style form to arrive and then to be crudely copied by an indigenous potter. If Anglo-Saxon – a date between c.450-550 AD be applicable. Initially an early C1 BC date is preferred.

Comment: Some small, mostly moderate-fairly large-sized elements throughout chronological range. Despite this tendency, there is a clear visual difference in wear-pattern between the prehistoric material and that of Conquest-period AD and Early Roman date. Most of the latter are fairly fresh. The PM sherd is fairly small, heavily abraded and technically intrusive.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Slightly uncertain (see note) – but, initially, nothing necessarily later than c.250/275 AD

Context: 2 – 223 sherds (weight: 5449gms)

84 EMIA>MIA flint-tempered ware (rusticated, c.600-350/300 BC emphasis; 2 x same vessels incl. 1 dual-tone red-finished fineware jar)

66 EMIA>MLIA flint-tempered ware (c.600-200/50 BC emphasis for most)

1 EMIA>MLIA shell-tempered ware (c.600-50 BC range possibly)

10 MIA>MLIA flint-tempered ware (c.300-200/50 BC emphasis probably)

2 MIA>MLIA flint-tempered sandy ware (c.300-200/50 BC emphasis probably)

14 MLIA flint-tempered ware (c.200-50 BC range; 3 same vessel, 1 late in range)

1 MLIA shell-tempered ware (c.200/150-50 BC emphasis probably)

1 MLIA sub-'Belgic'-style grog and flint-tempered ware (cf. Thompson 1982 Type D1-4 bowl and cf. broad parallels at Bigberry and Church Whitfield, c.125/100-75 BC emphasis probably)

2 LIA 'Belgic'-style grog-tempered ware (Thompson 1982 Type B2-1 ripple-shouldered jar, c.75-50/0 BC emphasis probably; same vessel)

Comment: Mostly small-fairly large-sized elements. Variably worn throughout chronological range represented – although MLIA elements tend to be fresher. The latest, 'Belgic' style, MLIA and LIA elements both share surface loss, otherwise fairly fresh.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.50 BC or slightly later

Context: 15 – 2 sherds (weight: 25gms)

2 EMIA>MIA flint-tempered ware (c.600-200 BC range)

Comment: One small, one fairly small, bodysherds, rather chipped and worn.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Probably residual

Trench 4

Context: 1 – 29 sherds (weight: 479gms)

6 EMIA>MIA flint-tempered ware (4 rusticated, c.600-350/300 BC)

9 EMIA>MIA flint-tempered ware (c.600-200 BC range)

1 MIA>MLIA flint-tempered ware (slight MIA preference, c.300-200/50 BC emphasis probably)

2 MIA>MLIA flint-tempered sandy ware (slight MIA preference, c.300-200/50 BC emphasis)

8 MLIA flint-tempered ware (c.200/150-50 BC emphasis; 2 same vessel)

1 LIA 'Belgic'-style grog-tempered ware (c.75/50-0 BC emphasis probably)

1 LIA-ER 'Belgic'-style grog-tempered ware (c.0/25-75 AD emphasis)

1 ER colour-coated red sandy ware (flagon, cf. Monaghan 1987 Type 1E1.1, c.75/100-150 AD)

Comment: Mostly small-moderate-sized elements, pre-MLIA-type material generally more worn than MLIA sherds – latter frequently near-fresh and likely to be from a broadly contemporary discard deposit. LIA and later sherds are all fairly small, the LIA element

markedly more worn than the MLIA or ER dated material. ER-dated material could be intrusive.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Probably between c.200-50 BC – with intrusive later material

Context: 1 – 13 sherds (weight: 169gms)

5 MIA>MLIA flint-tempered ware (c.350/300-200 BC emphasis probably)

4 MIA>MLIA flint-tempered sandy ware (slight MIA preference, c.300-200/50 BC emphasis possibly; 2 same vessel = Tr.4 Context 1)

4 MLIA flint-tempered ware (c.200-50 BC range; 3 same vessel)

Comment: Mostly medium-sized elements but including one large. None of the first entry elements are seriously worn. The 2 same-vessel sandy fineware sherds are rather chipped and worn and could be residual in-context. One MLIA element is from a characteristically knife-trimmed coarseware, fairly small sherd but fairly fresh. Could be from an undisturbed contemporary deposit.

Likely commencement date: Nothing obviously earlier than c.300/200 BC

Likely end-date: Possibly between c.200-50 BC

Context: 17 – 4 sherds (weight: 42gms)

4 EMIA>MIA flint-tempered ware (c.600-200 BC range)

Comment: All fairly small bodysherds, fine and coarseware, all rather chipped and worn.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.200 BC but could be residual

Test Pit 2

Context: 1 – 41 sherds (weight: 783gms)

1 EIA flint-tempered ware (c.1000-600 BC possibly; or MLIA)

3 EMIA>MIA flint-tempered ware (2 rusticated, c.600-350/300 BC emphasis probably)

19 EMIA>MIA flint-tempered ware (c.600-200 BC range)

2 MIA>MLIA flint-tempered ware (c.300-200/50 BC probable emphasis)

1 MIA>MLIA sandy ware (c.300-200/50 BC emphasis probably)

3 MLIA flint-tempered fine sandy ware (c.200-50 BC range)

6 MLIA flint-tempered ware (c.200-50 BC range)

1 LIA 'Belgic'-style grog-tempered ware (c.75/50-0 BC emphasis probably)

1 LIA-ER 'Belgic'-style grog-tempered ware (red-surfaced flagon, c.0/25-75 AD emphasis)

1 ER Southern Gaulish samian ware (Flavian, c.69-100 AD)

1 ER Dressel 28 amphora (calcareous inclusions, Baetican or Southern France, c.50/75-125 AD emphasis probably)

1 LP/ER/MR flint-tempered sandy ware with calcareous inclusions (hard-fired, lid – looks Roman)

1 MR grog-tempered Native Coarse Ware (c.150-175/200 AD emphasis probably – but could be hard-fired and earlier, Romanising)

Comment: The EIA element is moderate-sized, has heavy unifacial or use-wear damage. Its allocation is an understandable possibility based on its fabric – but it could also be MLIA. All other pre-MLIA elements tend to be small-fairly small and rather battered. The small MLIA component is mostly near-fresh and with larger elements. LIA>Roman sherds tend, mostly, to be fairly small and variably chipped and worn – except for one fairly large but crudely produced MR element, which is near-fresh.

Likely commencement date: Nothing obviously earlier than c.1000/600 BC, latter date for assemblage bulk

Likely end-date: Uncertain but definitely ER or MR, nothing obviously later than c.125/150 AD

Context: 2 – 164 sherds (weight: 3389gms)

64 EMIA>MIA flint-tempered ware (55 rusticated, c.600-350/300 BC emphasis; 2 same vessel; 1 polychrome-decorated)

1 EMIA>MIA shell-tempered ware (c.600-350/300 BC emphasis)

77 EMIA>MLIA flint-tempered ware (c.600-200/50 BC emphasis for most; 2 same vessel)

5 MIA>MLIA flint-tempered ware (c.350/300-50 BC emphasis for most)

11 MIA>MLIA flint-tempered sandy ware (c.350/300-50 BC emphasis for most; includes 1 complete jar base)

5 MLIA flint-tempered ware (c.200-50 BC range)

1 MLIA flint-tempered sandy ware (c.200-50 BC emphasis)

Comment: Small-large sized sherds, with fairly small-moderate sizes predominating. All variably worn throughout chronological range represented – although the MLIA component tends to be smaller in sherd size and marginally fresher.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Between c.200-50 BC

Context: 3 – 9 sherds (weight: 131gms)

4 EMIA>MIA flint-tempered ware (2 rusticated, c.600-350/300 BC; 1 = Tr.2 Context 15)

5 EMIA>MIA flint-tempered ware (c.600-300/200 BC)

Comment: Mostly fairly small-moderate sized elements, all variably chipped and worn.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.300/200 BC

Test Pit 3

Context: 2 – 34 sherds (weight: 633gms)

20 EMIA>MIA flint-tempered ware (rusticated, c.600-350/300 BC emphasis; 1 red-finished dual-tone decorated)

12 EMIA>MIA flint-tempered ware (c.600-200 BC range)

2 EMIA>MIA flint-tempered fine sandy ware (c.600-200 BC range)

Comment: Mostly fairly small-moderate sized elements, variably worn, but few severely and some only slightly – including the red-finished fineware element.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Nothing obviously later than c.300/200 BC

Test Pit 4

Context: 2 – 133 sherds (weight: 2423gms)

52 EMIA>MIA flint-tempered ware (rusticated, c.600-350/300 BC emphasis; 1 red-finished, 4 x same vessels)

47 EMIA>MIA flint-tempered ware (c.600-300/200 BC emphasis; same vessel – some may be MLIA)

5 MIA>MLIA flint-tempered ware (c.300-200/50 BC emphasis)

4 MIA>MLIA flint-tempered sandy ware (c.300-200/50 BC emphasis; 2 same vessel)

1 MIA>MLIA shell-tempered ware (c.300/200-50 BC emphasis)

16 MLIA flint-tempered ware (c.200-50 BC range; 3 same vessel; 1 jar rim with resin glue mend)

6 MLIA sub-‘Belgic’-style flint-tempered ware (c.125/100-50 BC, same vessel)

Comment: Majority small-moderate sized elements, some fairly large, variably worn throughout except for latest same-vessel entry which is near-fresh – and the last sherd cluster deposited.

Likely commencement date: Nothing obviously earlier than c.600 BC

Likely end-date: Between c.100-50 BC

Context: 20 – 5 sherds (weight: 67gms)

3 EMIA>MIA flint-tempered ware (c.600-200 BC range)

2 EMIA>MLIA flint-tempered sandy ware (slight MLIA preference, c.600/200-50 BC)

Comment: Small, fairly small, one moderate-sized, all bodysherds, fine and coarseware – all rather worn. This material is not attributable to a specific Iron Age date-range.

Likely commencement date: Nothing obviously earlier than c.600 BC

12.2 Quantification and Initial Spot Dating of the Worked Lithic Assemblage

Period Codes employed

Period	Code	Date (circa)
Lower Palaeolithic	LP	968,000 – 250,000 BC
Lower Palaeolithic I (<i>Mode 1 flake tool industry</i>)	LP I	968,000 – 320,000 BC
Lower Palaeolithic I (<i>M1 – Happisburgh-Pakefield</i>)	LP I hp	968,000 – 700,000 BC
Lower Palaeolithic II (<i>M2 - Fordwich</i>)	LP II fw	550,000 – 450,000 BC
Lower Palaeolithic II (<i>Mode 2 Acheulian handaxe industry</i>)	LP II	500,000 – 250,000 BC
Lower Palaeolithic I (<i>M1 – High Lodge</i>)	LP I hl	500,000 – 472,000 BC
Lower Palaeolithic II (<i>M2 – Cromerian Interglacial plus</i>)	LP II ci	500,000 – 450,000 BC
Lower Palaeolithic I (<i>M1 Clactonian - Hoxnian Interglacial</i>)	LP I ch	425,000 – 412,000 BC
Lower Palaeolithic II (<i>M2 – Hoxnian Interglacial</i>)	LP II h	412,000 – 362,000 BC
Lower Palaeolithic I (<i>M1 Clactonian - Purfleet Interglacial</i>)	LP I cp	332,000 – 320,000 BC
Lower Palaeolithic II (<i>M2 – Purfleet + subsequent cold stage</i>)	LP II p+	320,000 – 250,000 BC
Middle Palaeolithic	MP	250,000 – 42/38,500 BC
Earlier Middle Palaeolithic (<i>Levallois</i>)	EMP	250,000 – 184,000 BC
Later Middle Palaeolithic (<i>Mousterian</i>)	LMP	57,000 – 42/38,500 BC
Upper Palaeolithic	UP	43,000 – 9200 BC
Earlier Upper Palaeolithic	EUP	43,000 – 30,500 BC
Earlier Upper Palaeolithic I (<i>leaf points; LRJ</i>)	EUP I	43,000 – 38,500 BC
Earlier Upper Palaeolithic II (<i>Aurignacian II</i>)	EUP II	33,500 – 31,700 BC
Earlier Upper Palaeolithic III (<i>Font-Robert/Gravettian</i>)	EUP III	31,700 – 30,500 BC
Late Upper Palaeolithic (<i>Late Magdalenian/Creswellian</i>)	LUP	13,200 – 12,000 BC
Late to Final Upper Palaeolithic (<i>Hamburgian/Hengistbury</i>)	LFUP	12,500 – 11,500/10,800 BC
Final Upper Palaeolithic	FUP	12,000 – 9200 BC
Final Upper Palaeolithic I (<i>Federmesser/Azilian</i>)	FUP I	12,000/11,500 – 10,800 BC
Final Upper Palaeolithic II (<i>Ahrensburgian/Long Blade</i>)	FUP II	10,000 – 9200 BC
Mesolithic	M	9200 – 4000 BC
Earlier Mesolithic	EM	9200 – 7550 BC
Middle Mesolithic	MM	8300 – 6450 BC
Later Mesolithic	LM	7550 – 4000 BC
Neolithic	N	4000 – 2100 BC
Early/Earlier Neolithic	EN	4000 – 3550/3200 BC
Middle Neolithic	MN	3550 – 2900 BC
Later/Late Neolithic	LN	3200/2900 – 2100 BC
Chalcolithic	C	2500 – 2150 BC
Beaker period	BK	2500 – 1700 BC
Earlier Beaker period	EBK	2500 – 2000 BC
Bronze Age	BA	2200 – 900 BC
Early Bronze Age	EBA	2200 – 1550 BC
Late Beaker period	LBK	2000 – 1700 BC
Late Beaker period to Early Bronze Age	LBK>EBA	2000 – 1550 BC
Lithic Later Bronze Age (<i>MBA>EIA+</i>)	LLBA	1550 – 600+ BC
Early Middle Bronze Age (<i>ceramic MBA</i>)	EMBA	1550 – 1350 BC
Middle Bronze Age (<i>full range; ceramic MBA to 1350 BC</i>)	MBA	1550 – 1150 BC
Mid to Late Bronze Age transition	MBA-LBA	1350 – 1150 BC
Late Bronze Age	LBA	1150 – 1000/900 BC
Iron Age	IA	1000/900 BC – 43/50 AD

Earliest Iron Age	EIA	1000/900 – 600 BC
Early to Mid Iron Age	EMIA	600 – 350 BC
Middle Iron Age	MIA	400 – 200 BC
Mid to Late Iron Age transition	MLIA	200 – 50 BC
Late Iron Age	LIA	50 BC – 43/50 AD

Key to lithics catalogue

- Class** - Class of artefact, listed individually under its context. Ordered as Waste, Retouched and Utilised, then by date, then by the strength of patina if appropriate to the site: strongest (residual?) to lightest/unpatinated (possibly contemporary when occurring in a patinating environment).
 Chip : Small struck flake with a maximum diameter less than 10mm.
Italics : Additional notes of interest in italics; including:
 (RU) : Denotes tools which have re-used old, patinated struck flakes.
 (PP) : Denotes the presence of platform preparation.
- FS** - Flake shape or core type.
Flake shape
 S : Short or squat: width same as or greater than length.
 L : Long: length greater than width.
 N : Narrow: blade proportions but not a true blade.
 B : Blade: length twice or more width, with parallel sides and dorsal ridge/s.
 BL : Bladelet: blade less than 12mm wide.
 - : Indeterminate, typically because of breaks.
Core type
 C? : Possible core – a natural nodule with only a couple of flake scars, which might have been struck.
 1/2/ : The number of platforms, or
 M : Multiplatform.
 D : Discoidal.
 K : Keeled.
 L : Levallois/Levallois-style.
 F : Fragment.
 - : Uncertain (broken).
- FT** - Flake type.
 P : Primary: complete/nearly complete cover of cortex on the dorsal surface.
 S : Secondary: lesser amount of cortex.
 T : Tertiary: no cortex.
 / : Near... ie. '/T' : a near tertiary flake (effectively a tertiary flake).
 N : Natural: not a struck flake.
- RM** - Raw material type.
- Buff* B : Dirty looking (weathered) buff cortex, fairly thin, rough, generally directly overlaying flint matrix.
 TB : Very thin, dirty looking (weathered) buff cortex, slightly smoothed, directly overlaying flint matrix.
 BG : Mixed buff and buff-washed grey-black cortex, thin, rough, directly overlaying flint matrix.
 WB : Dirty buff with patches of cleaner whiter cortex, thin, rough, directly overlaying flint matrix.
- Black+* 1 : Black flint; thick and dense black or thin translucent black.
 2 : Mixed patchy black and grey flint.
 3 : Mixed patchy black and brown to translucent yellowy-brown flint.

- 4 : Mixed patchy black, grey and brown to translucent yellowy-brown flint.
- a : Generally free of significant inclusions; high quality raw material.
- b : Generally small cherty inclusions, whether occasional or frequent, which likely do not significantly affect knapping; good quality raw material.
- c : A moderate content of small to medium-sized cherty inclusions and/or flaws which likely will affect the knapping quality to some degree; moderate quality.
- d : Moderate to frequent small and/or medium and large-sized cherty inclusions and/or flaws which significantly affect the knapping quality; poor raw material.
- e : A very grainy, coarse-looking or highly flawed-looking flint matrix suggesting poor raw material, but need not be particularly cherty.
- H** - Hammer type (if possible).
- H : Hard stone (eg. a cobble of rolled flint or quartzite).
- SS : Soft stone (combined hard and soft characteristics, typically mostly hard hammer characters with a platform lip; a cortexed flint nodule?).
- S : Soft organic (eg. antler, bone, wood).
- : Missing (broken). **p** - Platform type.
- S : Single facet.
- F : Faceted (multi-facet).
- L : Linear.
- P : Punctiform.
- X : Shattered.
- C : Cortex.
- N : Natural facet.
- : Missing (broken).
- T** - Type of termination on flakes.
- F : Feathered.
- H : Hinged.
- S : Step.
- O : Overshot steep angled edge, but tip edge often feathering-out rather than abrupt.
- T : Thick, steep edge, which like O often feathers to very tip.
- : Missing (broken).
- C** - Percentage of cortex remaining for 'secondary' pieces.
- 0 : None.
- < : Less than 50%.
- = : Around 50%.
- > : Greater than 50%.
- W** - Weight in grams (minimum 1g).
- Patina** - Patina present? If differential: described by ventral/dorsal surface; on cores described by platform/flake scars. NB. Note () code below.
- N : None.
- Y : A glossy, yellowy sheen.
- () : Patina codes in brackets describe an earlier patina type truncated by re-use.
- D** - Potential/certain post-discard chipping/breakage damage present? NB. In a geology which inhibits or lacks patination processes this could help to suggest a piece is residual to some degree (exposed and perhaps trampled post-discard prior to natural/incidental redeposition within the context).
- N : None; fresh.
- F : Some slight chipping but overall fairly fresh.
- Y : Yes, likely chipped or broken post discard.
- R : Residual.
- PR : Chipped or broken pre-patination.
- PO : Chipped or broken post-patination.

- NR : No significant damage but significantly patinated and residual.
 ? : Denotes damage present but not certainly post-discard; might be from use. **I**
 - Worthy of future illustration? Initial estimate of pieces of prime interest.
 Y : Yes.
 ? : Possibly, dependent upon context and associations.
 1 etc. : Number assigned to an illustration or photograph provided with this report.

- Period** - Potential date range, defined by Period Codes.
 > : To.
 < : No later than.
 / : Or.
 - : No firm or usefully compact date range.
Preference - Date preferred at this time. Sometimes a tighter but more intuitive opinion.

Catalogue:

Quantification and spot-dating of the lithics, with notes

Context													
Notes													
Implications													
<i>Lithic class</i>	<i>FS</i>	<i>FT</i>	<i>RM</i>	<i>H</i>	<i>P</i>	<i>T</i>	<i>C</i>	<i>W</i>	<i>Patina</i>	<i>D</i>	<i>I</i>	<i>Period</i>	<i>Preference</i>
<i>Total</i>													
<p>Tr 2; 1 (circled) Thick, decent looking medium sized flake, retouched rather simply across distal end; perhaps also with the lateral edges utilised as a knife. Could date very widely (M>?MBA), though with a broad LN>EBA preference; potentially less common post 2000 BC and particularly so at the later end of the EBA (caution) and perhaps more likely to be BK/?EBK period than significantly later or earlier, given the character of the flake and the retouch. 1 only, broadly LN>EBA and perhaps more typically EBK period than significantly earlier or later (caution). Appears fairly fresh, though has a greater likelihood of being residual being the sole recovery, unless the context is of special circumstance perhaps. Context '1 (circled)' appears to be the only context producing flint in the evaluation trenches. Is this an overburden, or a trench surface layer, comprising the same deposit across all trenches? Consider the nature of the context.</p>													
<i>Retouched</i>													
?End scraper/knife (PP?)	S	S	B4c	H	S	-	<	56	N	F?	?	M>?MBA	LN>EBA/EBK?
	Decent thick flake thinning to dist end, with broad convex dist end showing dir semiabr marg slightly irreg executed ret (mod angled edge). Both lats thin and show abras (u-w? As knife?). Some concretions but only on dors face; may obscure poss PP.												
1								56					

Tr 3; 1 (circled)

Flake probably N>EBA (could but need not be earlier, unless there is a significant established presence in the vicinity), with retouch (highly varied in direction and resulting edge angles) around all margins, forming very uneven profile overall. Tools with such edges are known in LLBA assemblages, but the flake itself is unlikely to date later than the EBA and there is no certain evidence for re-use (a subtle yellowy patina is likely to be present, but difficult to discern in detail), though 1 small area of such (at least) may be present. If the flake and the tool use is largely contemporary, a ?EBA date is possible (it would seem less likely to be earlier, given the retouch). However it could also be a result of undiscernible later re-use and perhaps the patina formed post second discard.

1 only, a flake of broad probable N>EBA date, with the tool use aspect, if largely contemporary with the flake, suggesting a date towards the later end of that range, ie. perhaps EBA (caution). The retouch would seem less likely to be earlier and more likely to be later and of LLBA date. It is possible that the retouch is largely a result of re-use which is undiscernible, or that the subtle patination occurred after the discard of the re-used tool. This is speculation however and ultimately the situation is unclear. Overall, a flake of likely N>EBA date is present (it could but need not date earlier), while the date of its use as a tool is uncertain, but seems much more typical of LLBA activity. The relationship to the context is also unclear, but it may more likely be residual, being the sole recovery; more certainly so if purely N>EBA, less so if LLBA. Consider the nature of the context. Is a relationship with the flint from Tr 2 possible/likely?

<i>Retouched</i>														
Misc ret flake – scraper (RU?)	L	/T	TB4c	H?	-	-	0	21	Y	?			<i>FI N>EBA</i>	??EBA/LLBA?
	Thin-ish decent flake with all dors flake scars struck from same prox end. Speck of remnant cortex. Retouch of varying dir and inv directions and abr or semi-abr, but all very marg, present around all edges inc prox and dist ends. All edges likely used for scraping, with at least 1 more prominent broad shallow hollow edge. At least a couple of adj inv shallow scars prob truncates patina, but this need not be intentional re-use.													
1								21						

Tr 4; 1 (circled)

Large-ish broad, thick butted, simply struck and probably simply utilised flake. Chips and breaks.

1 only. *This piece could date very widely, though it does have the potential to be a product of a late industry (LLBA). It need not be however and this is a single piece of evidence with no specific/reliable data present. Potentially residual being the sole recovery, unless perhaps pottery of Late Prehistoric (LLBA) date is also present, though given the underlying geology and uncertainty over the presence of a patination - no contemporary relationship to any additional artefacts present, or the context, is guaranteed.

<i>Utilised</i>														
Flake - ?side scraper + knife?	S	/P	WB3b	H	C	H	>	60	N? Y?	?			-	- (*LLBA??)
	Broad, squat, thick bulb. Cortexed butt, dors mostly nat facets (showing chalk-soil type pat; a couple of flake scars). 1 lat broken. Other lat steep with sm area of dir and inv shallow chipping scars. Short length of dir scars and chips on dist end leading to broken lat.													
1								60						

TP 3; 2 (circled)

Medium sized thick butted flake. Broad cortexed platform as in Tr4 (some relationship possible? Caution; speculation). **1 only. Same *comments as for Tr 4.**

<i>Utilised</i>														
Flake – knife?	S	S	BG3b	H	C	-	<	30	N? Y?	?			-	- (*LLBA??)

	Broad cortexd plat, obliq angled flake, lats converge to pointed dist tip, tip broken. At least 1 dors facet (along long lat) prob nat (showing chalk-soil type pat); dors face of other lat may also be nat facet. Longest lat (straight, shallow angled, thin) shows various dir and inv marg ret/u-w scarring. Other lat shorter, steep, shows similar scarring (blunting for handling, or from use?). Some concretions, predominantly on vent.												
1									30				
Totals													
4									167				

Context													
Notes													
Implications													
<i>Lithic class</i>	<i>FS</i>	<i>FT</i>	<i>RM</i>	<i>H</i>	<i>P</i>	<i>T</i>	<i>C</i>	<i>W</i>	<i>Patina</i>	<i>D</i>	<i>I</i>	<i>Period</i>	<i>Preference</i>
<i>Total</i>													
CRN3 {bag 1}													
1 large thick flake showing utilisation along 1 moderately angled lateral edge, probably from cutting or scraping (relatively light duties only, despite size). 1 medium sized flake with thin edges all showing likely use-wear. Both feel fairly fresh, but show scratches from metal tools (from the excavation, or contemporary?).													
2 only, feeling relatively fresh and potentially contemporary with each other and the context. 1 notably very large thick flake. No reliable specific diagnostic traits, but the impression is that these are more likely to be LLBA or later (Historic). The flakes seem less likely to be a result of raw material being intentionally struck for use as tools and more likely represent the expedient use of a useful edge incidentally occurring on a flint struck for other purposes, perhaps debitage created in shaping large nodules for construction purposes. If so, such pieces could easily be R or MED, or later perhaps, though the question is whether there is any local precedence for material of Historic date to show expedient use (unknown at this time). It is worth noting that assemblages of the tool making flintknapping industries of (LLBA) MBA>EIA date seen locally do not typically contain such large flakes. When larger flakes do occur, they are a minority element amongst a dominance of small sized flakes, of which there are none in this and the additional material presented. It seems more likely that these are the products of post 'classic' LLBA industries, ie. perhaps EMIA/MIA or later, where, though flint is still used, it is no longer a prime raw material for tool making (hammerstones/pounders aside). It is known that this area has a precedence for significant activity in the ?MIA>LIA, R and MED periods (and of course subsequently) and it seems likely that these 2 pieces could well be a product of such activities. Both show scratches from metal tools (from the excavation, or contemporary to their use?).													
<i>Utilised</i>													
Flake – knife/side scraper	L	S	SB2b	H	S	-	<	363	N?		F		?LLBA> *?MIA>R??
	V lrg fl, thick butt and thick triang sec tapering to dist tip (slight brk). 1 long mod angl'd lat shows marg mostly dir but bifac in places chipping and abras likely from use. Upper part other lat steeper, lower part cortexd. Some iron staining. Several scratches from metal tools, from ex or contemp? *It is known this site has precedence for activity in the ?MIA>LIA, R and MED periods (and subsequent).												
Flake – knife	S	T	4b	H	-	F	0	55	N? Y?		?	-	<i>Associated?</i>
	Med sized, thin edges all showing dir abras and marg chipping likely from use.												
2								418					
CRN3 {bag 2}													
2 large flakes and 1 thick medium sized broken flake. 1 of the former, a side scraper?/knife, is on a decent looking flake showing some marginal retouch and could date widely (N>LLBA?), these characters perhaps suggesting it is less likely to derive from after the general demise of the Prehistoric flintworking industry in the period/s sometime after the EIA. However, in raw material type and size this flake is little different from the other additional pieces presented, the unusual nature of which is leading to ideas that they might relate to the ?MIA>MED activity known to occur in the area. The other flake has a proximal break and shows inverse shallow invasive retouch along one thick steep angled edge, the very edge showing marginal chipping and abrasion damage. The thick, broken, much poorer looking flake shows heavy use, perhaps from chopping and appears generally battered and patinated and could be residual.													
3 only, with 1 utilised flake possibly residual. The 2 others, on large flakes, both show retouch; 1 may date broadly N>LLBA, with perhaps a slight preference for the LLBA. Both these 2 probably show a subtle yellowy patina, but otherwise seem relatively fresh and have the potential to be contemporary with each other and their context. Both													

also show scratches from metal tools (from the excavation, or contemporary to their use?). Might these be related to the 2 other pieces from CRN3 {bag 1} above and all be of the same date? If so, the retouch on these 2 better looking flakes could suggest that the makers were not too far removed from classic Prehistoric flintworking techniques and that a ?MIA>LIA date or just after, relating to the significant IA activity in the vicinity, is possible. Consider the nature of the context and their distribution.

<i>Retouched</i>														
Side scraper? +/- knife	S	T	2b	H	F	H	O	94	Y?		?		N>LLBA?	LLBA??
	Decent lrg broad fl with lrg fl scar removal facets, some incip cones and abraded hollow on plat at striking point. 1 lat thin with steep facets, other lat shallow angld with dir abr marg ret (edge with step fract chipping and abras) along upper half and dir chips and abras along lower. Poss a subtle pat, otherwise feels fresh. Several scratches from metal tools.													
Misc. ret. flake (<i>prx brk</i>)	L	P	S2b	-	-	-	>	207	N? Y?		?		-	*?
	A lrg sub-squareish flint, prob from a lrg flake with a steep break at prx end. 1 thinner lat uneven and part broken, other lat a thick right angld edge showing *inv shallow very invasive scarring along almost all of length (purpose?), with the very edge showing step fract chipping and abras. Breaks aside, feels relatively fresh. Some minor scratches from metal tools.													
<i>Utilised</i>														
Flake – chopper?	-	S	TB2c	H	C	H	<	87	Y		?		-	<i>Residual?</i>
	Thick L chunk likely split/broken down middle, 1 intact lat thick and steep and part cortxd with lower (vent) edge bifac chipped and battered from heavy use, poss from chopping. The upper (dors) edge of the oppos broken steep lat shows similar but slightly lighter bifac chipping/battering damage.													
3								388						
CRN3 upper occupation level														
1 large, thick, intentional looking flake, showing utilisation along 1 thin lateral edge. Likely yellow patinated and with an apparent post patina break, this piece nevertheless feels fairly sharp and fresh.														
1 only, potentially residual to some degree, though feels relatively fresh. Could date widely (N>), though its size is akin to the other additional material presented and there is a slight preference for it to relate to the known activity of ?MIA>R date in the area (see the other comments further above). Given that this is a more properly produced flake however and may show some very limited but intentional retouch, a R or later date may be less likely in this case (though some flint tool making in the R period is known from elsewhere). Shows scratches from metal tools (from the excavation, or contemporary to their use?).														
<i>Utilised</i>														
Flake – knife (+ ret?)	L	/T	WN2c	H	S	F	<	172	Y?		Y?		?N>	*?MIA>R??
	Lrg, thick triang sec, some areas of crushing on dors ridges. 1 lat steep with sm area cortx in central area, other lat shallow angld and thin with mostly dir marg scarring and abras, with sm areas of dir and inv more abr ret? Apparent post pat brk to part of dist end, but otherwise fresh and sharp. Several scratches from metal tools, from ex or contemp? *It is known this site has precedence for activity in the ?MIA>LIA, R and MED periods (and subsequent).													
1								172						
Totals														
6								978						

12.3 Quantification of the Environmental Data

Sample	Fill	Sample Description	Bulk sample volume taken (L)	Bulk volume processed (L)
1	7	scorched daub/finely crushed chalk deposit	30	14
2	4	post pit fill	40	27
3	15	silt layer over cobbled surface	60	16
4	20	silt layer over cobbled surface	30	7
5	24	scorched daub/finely crushed chalk deposit	15	5
6	17	silt layer over cobbled surface	20	8

Table 3 Sample Contents

Sample	Fill	Sample description	Flot volume (ml)	Charred grains			Charred seeds			Charred wood >4mmØ	charred wood <4mmØ	Dried waterlogged Seeds			Modern root/rhizomes
				ab	div	pres	ab	div	pres			ab	div	pres	
1	7	scorched daub/ chalk deposit	10	1	1	1	-	-	-	1	3	1	1	3	3
2	4	post pit fill	75	1	1	2	-	-	-	1	2	1	1	3	3
3	15	silt layer over cobbled surface	25	1	1	3	1	1	2	1	-	1	1	3	3
4	20	silt layer over cobbled surface	5	-	-	-	1	1	3	-	1	-	-	-	-
5	24	scorched daub/finely crushed chalk deposit	5	-	-	-	-	-	-	-	1	-	-	-	3
6	17	silt layer over cobbled surface	10	1	1	1	-	-	-	-	-	-	-	-	3

Key: ab = abundance [1=occasional1-10,2=moderate 11-100 and 3= abundant>100; div = diversity[1=low1-4 taxa types, 2=moderate 5-10,3= high;

pres= preservation [1 = poor (family level only), 2= moderate (genus), 3= good (species identification possible);

Table 4 Plant Macro-Remains

Sample	Fill	Sample description	Flot volume (ml)	Charred bone (ml)	Small uncharred mammal/amphibian bone	Unburnt large mammal bone fragments	<i>Ceciliodes acicula</i> Müller	Terrestrial mollusca	Marine mollusca
1	7	scorched daub/finely crushed chalk deposit	10	1	2	-	3	3	-
2	4	post pit fill	75	1	2	2	2	1	1
3	15	silt layer over cobbled surface	25	1	-	2	3	2	-
4	20	silt layer over cobbled surface	5	-	-	2	-	2	-
5	24	scorched daub/finely crushed chalk deposit	5	-	-	1	2	1	-
6	17	silt layer over cobbled surface	10	-	-	2	2	2	-

Key: ab = abundance [1=occasional 1-10, 2=moderate 11-100]

Table 5 Faunal remains

13 APPENDIX 2 – KCC HER FORM

Site Name: Archaeological Evaluation on land adjacent to Marshlands, Jubilee Road, Worth, near Sandwich, Kent

SWAT Site Code: SMW-EV-17

Site Address: As above

Summary:

Swale & Thames Survey Company (SWAT Archaeology) were commissioned by Caroline Bayman to undertake an archaeological evaluation on adjacent to Marshlands, Jubilee Road, Worth, near Sandwich in Kent. The archaeological works were monitored by the Kent County Council Senior Archaeological Officer.

The fieldwork was carried out in January 2017 in accordance with an archaeological specification (Kent County Council 2016) submitted to the Local Planning Authority prior to commencement of works.

The Archaeological Evaluation consisted of four trenches, which encountered a relatively common stratigraphic sequence comprising topsoil and subsoil overlying natural geological Brickearth and Chalk. The evaluation has demonstrated that archaeological remains with a predominantly Early-to Mid Iron Age date-range of c. 600 to c. 300 were present on the site at depths of between 0.6m and 0.72m below the present ground surface.

The remains, amongst which were parts of a probable building or buildings, a flint-cobbled trackway and two occupation deposits, almost certainly comprised the remains of the same settlement, albeit during an earlier period of occupation, exposed to the west, suggesting that a long-lived Iron Age settlement of considerable size occupied the general area. It is likely that the settlement benefitted from its location close to established routes in terms of trade and communication. The ceramic evidence clearly indicates that the settlement preceded the onset of the conventionally termed 'Belgic' period (c. 150 BC), which saw the introduction of the potters wheel and continued well into the Mid Roman period.

The presence of Iron Age settlement within and around the site is indicated by the presence of domestic rubbish (potsherds, crudely worked flint and animal bone of cattle, horse, dog, sheep and swine) recovered from nearly all deposits overlying the primary occupation horizon removed manually. Such a large amount of such material recovered from the relatively small volume of the deposits removed by

hand (approximately 11m³) during the investigation points to the intensive and/or protracted occupation activity on or near the development site.

It is evident from the results of the evaluation that significant archaeological remains are present within the proposed site. It is considered high likely that these remains have associations with known Iron Age settlement within the surrounding area. It is therefore recommended that any future archaeological works, should they be deemed necessary, takes into consideration the wider archaeological landscape, in particular the major Iron Age site and ditched enclosure.

District/Unitary: Dover District Council

Period(s):

NGR (centre of site to eight figures) NGR 633640 155370

Type of Archaeological work: Archaeological Evaluation

Date of recording: January 2017

Unit undertaking recording: Swale and Thames Survey Company (SWAT Archaeology)

Geology: Brickearth and Chalk

Title and author of accompanying report: SWAT Archaeology (2017) Archaeological Evaluation on land adjacent to Marshlands, Jubilee Road, Worth, near Sandwich, Kent

Summary of fieldwork results (begin with earliest period first, add NGRs where appropriate)

See above

Location of archive/finds: SWAT. Archaeology. Graveney Rd, Faversham, Kent. ME13 8UP

Contact at Unit: Paul Wilkinson

Date: 21/11/2017

SITE SPECIFIC REQUIREMENTS

Specification for an archaeological evaluation of land adjacent to Marshlands, Jubilee Road, Worth, Sandwich, Kent CT14 0DT.

1. Summary:

- 1.1 This specification sets out the requirements for an archaeological evaluation of land adjacent to Marshlands on Jubilee Road, Worth, near Sandwich in Kent. The evaluation will comprise the excavation of 2 archaeological trial trenches in accordance with the attached indicative trench location plan. The site lies immediately adjacent to the scheduled monument “Romano-Celtic temple and Iron Age site S of Worth” and archaeological remains belonging to this site are known to extend beyond the limits of the scheduled area. The evaluation is being undertaken in response to a planning submission for the erection of two semi-detached dwellings to enable an informed assessment to be made of the impact of the scheme on archaeological remains prior to determination of the application.

2. Site Location & Description:

- 2.1 The proposed development is to be located on land adjacent to Marshlands, Jubilee Road, Worth, Sandwich, Kent CT14 0DT (NGR 633640 155370 approximate site centre). The proposed development is located on the southern edge of the village of Worth, and is accessed from Jubilee Road. The site is bounded to the north and south by neighbouring residential properties, to the west by open agricultural land and to the east by Jubilee Road onto which the site fronts. The site currently comprises a garden area associated with adjacent dwelling formed of areas of grass, hardstanding for a car and containing a small garage and some ornamental planting.

3. Planning Background & Nature of Development:

- 3.1 A planning application has recently been submitted to Dover District Council as Local Planning Authority for the “erection of a 2no. semi-detached dwellings and creation of access and parking”
- 3.2 The site lies immediately adjacent to the scheduled monument “Romano-Celtic temple and Iron Age site S of Worth” and archaeological remains belonging to this site are known to extend beyond the limits of the scheduled area. The site therefore could contain archaeological remains that may be nationally important and of an equivalent significance to scheduled monuments and for which preservation in situ would be the starting point when considering the development potential of the site.

3.3 On this basis Kent County Council's Heritage Conservation Group, as archaeological advisors to the LPA, has requested (in accordance with paragraph 128 of the NPPF) that a field evaluation be submitted prior to determination of the planning application. The evaluation is to determine whether nationally important archaeological remains are present that could require preservation, or whose excavation might be so onerous as to be an unreasonable burden to secure through a condition. The results of the evaluation will be used by the LPA and their archaeological advisors to enable an informed assessment of the development impacts.

4. Geological & Topographical Background:

4.1 According to the mapping of the British Geological Survey the site, which is located at an elevation of some 9m aOD, is located on bedrock chalk of the Margate Chalk Member. The site is located on a localised area of slightly raised ground overlooking the reclaimed marshland of the Lydden Valley.

5. Archaeological & Historical Background Potential

5.1 The archaeological potential is based on the proximity of archaeological remains presently recorded in the HER.

5.2 The proposed development site lies immediately adjacent to a Scheduled Monument (National Heritage List no 1004225). The Scheduled Monument is focussed on the site of a 'Romano-Celtic' temple and earlier Iron Age site which was investigated in part in 1925. The temple is thought to have been built in two phases and archaeological investigations suggest that it is located on the site of an earlier Iron Age shrine. This Iron Age shrine forms part of a much more extensive Iron Age site which clearly extends beyond the bounds of the Scheduled Monument.

5.3 Investigations by the Dover Archaeological Group in the mid-late 1980s identified a major Iron Age site set within a substantial ditched enclosure extending over some seven hectares. The proposed development site would lie towards the centre of this enclosure. A significant number of coins (several hundred) dating to the Iron Age and Romano-British periods have been recorded in the area; indeed the site has produced one of the largest collections of pre-Roman coins from Kent.

5.4 Recent archaeological survey, including works by the University of Leicester as part of their Leverhulme Trust funded research project "*In the footsteps of Caesar; the archaeology of the first Roman invasions of Britain*", has helped to define the area of Iron Age activity. It has become clear that this important Iron Age and Romano-British site covers an area more extensive than the limits of the present scheduling. As such the area designated as a Scheduled Monument covers only a small part of this important site and it is very probably that archaeological remains equivalent in significance to those within the scheduled area will extend into the site in question.

5.5 Further information on the above can be found in the County Historic Environment Record which is held at the Heritage Conservation Group, Environment & Waste, Invicta House, County Hall, Maidstone ME14 1XX.

6. Specific Aims of the Archaeological Work:

6.1 The aim of the evaluation work is to determine whether any archaeological remains survive on site, and in particular to determine, as far as is possible, whether nationally important archaeological remains are present that could require preservation and should be considered in accordance with paragraph 139 of the NPPF, or whose excavation might be so onerous as to be an unreasonable burden to secure through a condition. The results of the evaluation will be used by the Local Planning Authority and their advisors to understand the significance of any archaeological remains present and in turn to enable an informed assessment of the development impacts.

6.2 The evaluation is thus to ascertain the extent, depth below ground surface, depth of deposit, character, importance, significance and condition of any archaeological remains on site.

7. Methodology:

7.1 The general methodology for the archaeological evaluation is set out in Part B of this specification.

7.2 The archaeological evaluation will comprise the excavation of 2 archaeological trial trenches within the proposed development site. An indicative trench location plan is attached at the end of this specification. The proposed evaluation includes one 15m x 1.2m trench (arranged in a 'T' shape) and a single 10m x 1.2m trench (the precise width of the trenches being determined by the plant employed). These trenches are shown in pink on the attached indicative location plan.

7.3 The Archaeological Contractor should confirm the nature and location of any constraints on-site prior to the commencement of excavation and if necessary amend the trench location plan accordingly. Particular attention will be paid to avoiding any services and/or trees that are to be retained or to avoid damage to the roots thereof. Any amendments to the trench design must be agreed in advance with the County Archaeologist and a revised trench plan submitted for approval.

7.3 Should significant remains be exposed it may be necessary to enlarge or extend the evaluation trenches to allow for further investigation of any significant features or deposits that may be encountered.

7.4 Prior to the commencement of fieldwork the Archaeological Contractor shall agree with the developer, or their agent, any fencing required during the works and requirements for reinstatement at completion. The Archaeological Contractor shall ensure that arrangements are in place for appropriate

reinstatement prior to the commencement of any excavations.

8. Site Recording:

- 8.1 Site recording should be undertaken in accordance with the methodology outlined in Part B of this specification.

9. Site Reporting and Archiving:

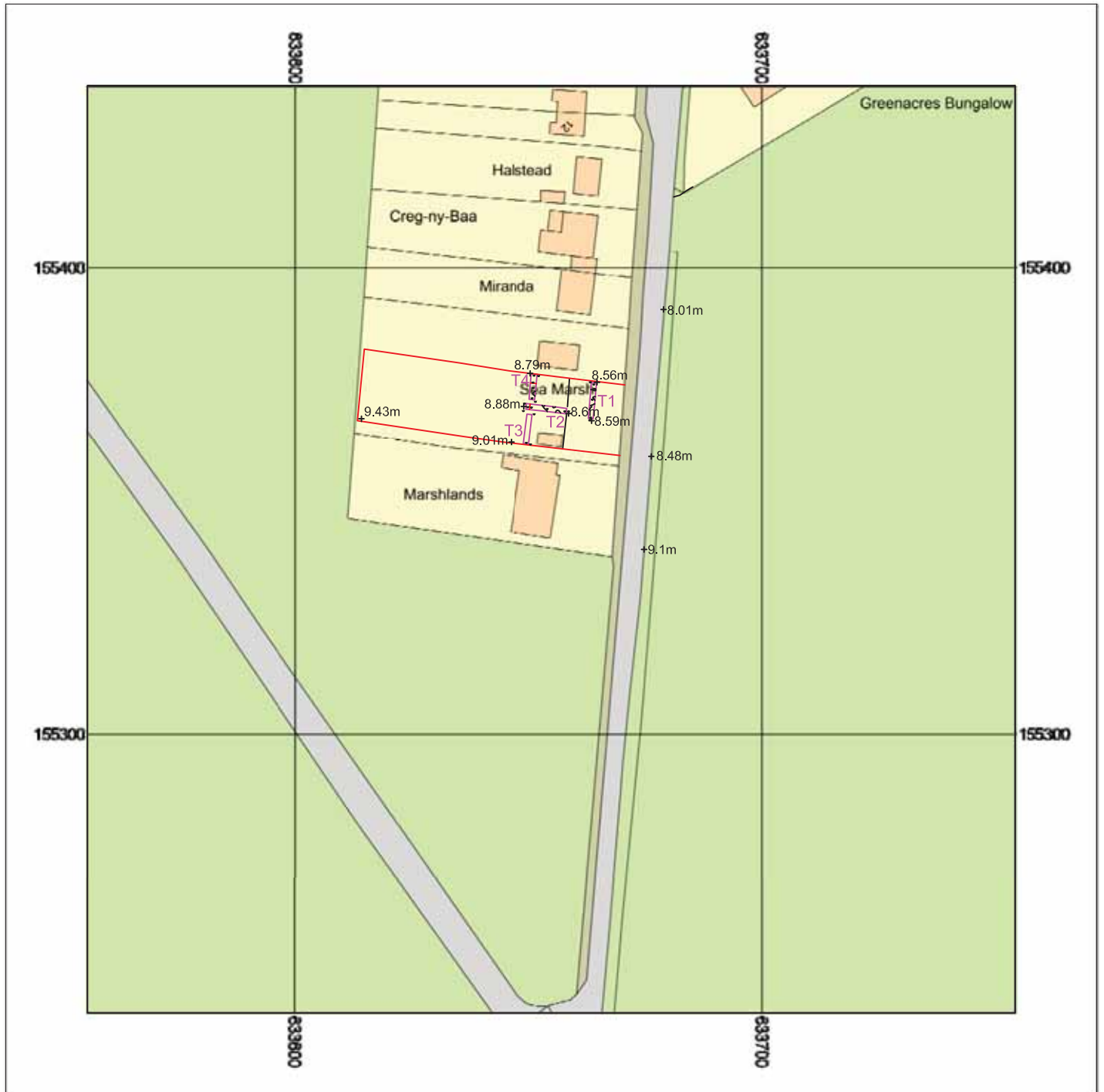
- 9.1 Site reporting and archiving should be undertaken in accordance with the methodology outlined in Part B of this specification.
- 9.2 A copy of the resulting report shall be offered to the Dover Archaeological Group.

10. Monitoring:

- 10.1 Site monitoring should be arranged in accordance with the methodology outlined in Part B of this specification. Opportunity should be provided to the County Archaeologist to visit the trenches prior to any hand excavation so as to agree any sampling strategy and again prior to any backfilling.
- 10.2 Prior to the commencement of fieldwork, following the completion and fieldwork and when submitting the report the Archaeological Contractor should complete and submit the relevant portions of the Fieldwork Notification Form (attached).

11. General:

- 11.1 Prepared by the Heritage Conservation Group, Kent County Council
December 2016



0 50m



Figure 1: Seamarsh, Jubilee Rd., Worth: OS colour plan with Evaluation trench plan, scale 1:1250

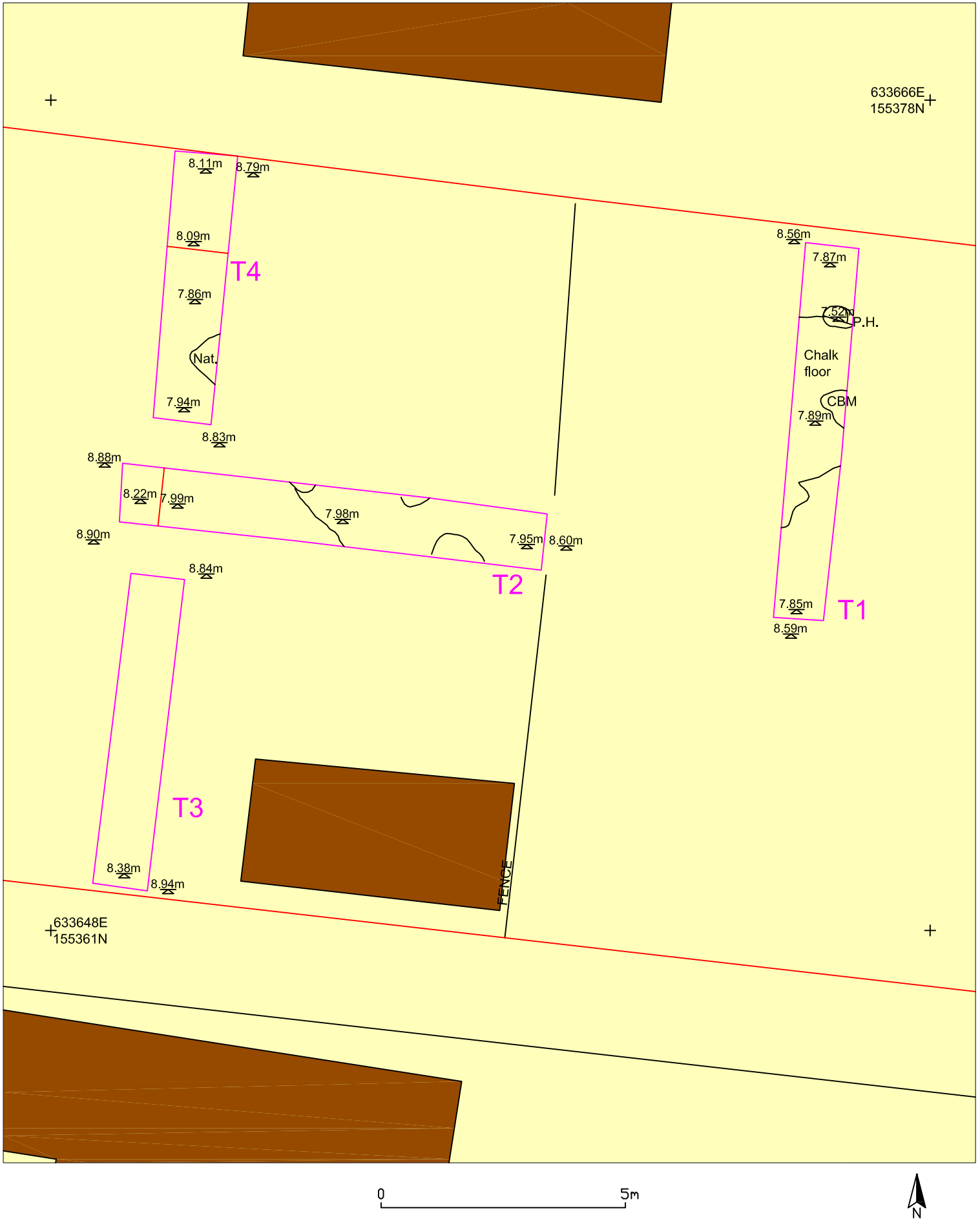
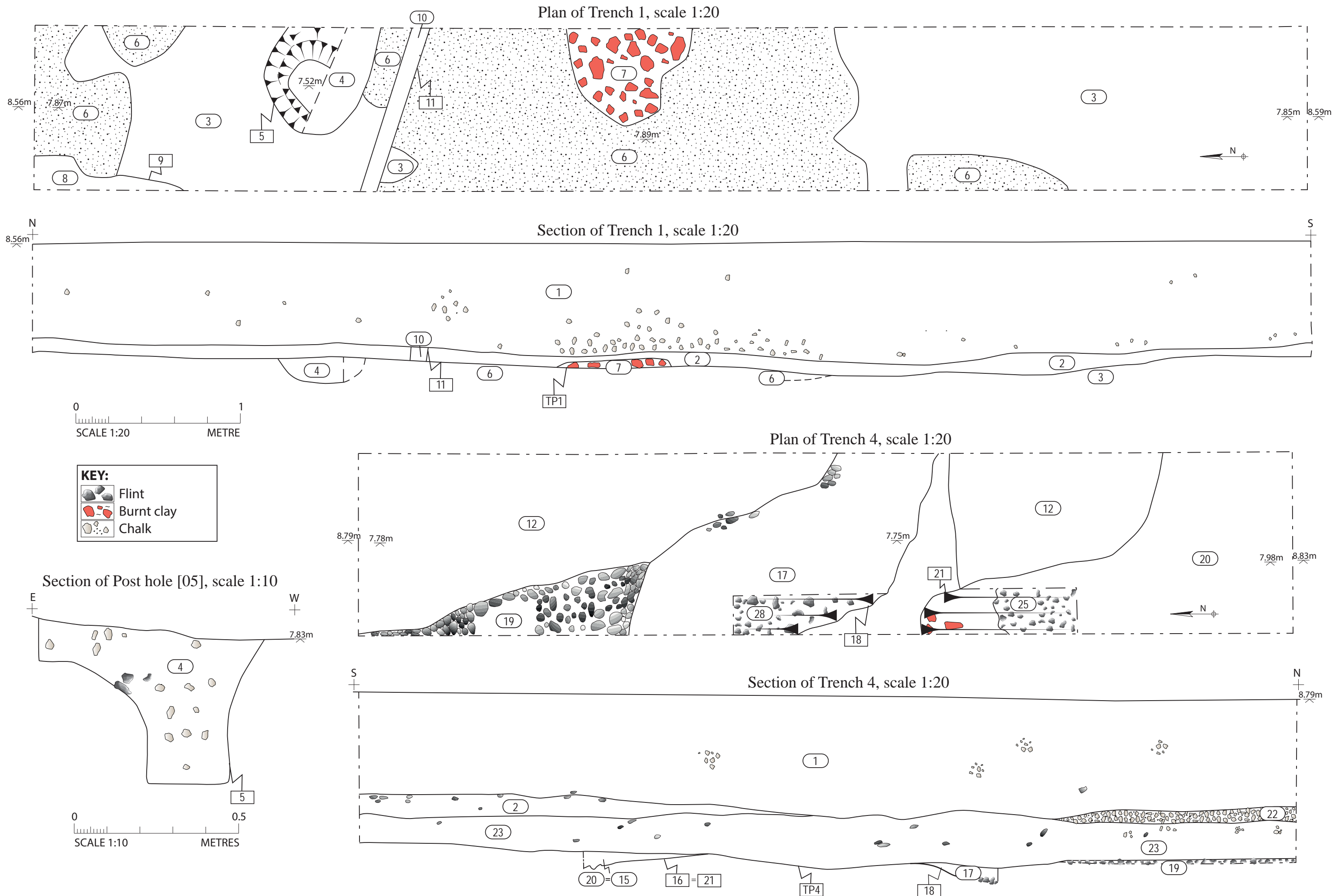


Figure 2: Seamarsh, Jubilee Rd., Worth: Evaluation trench plan, scale 1:100



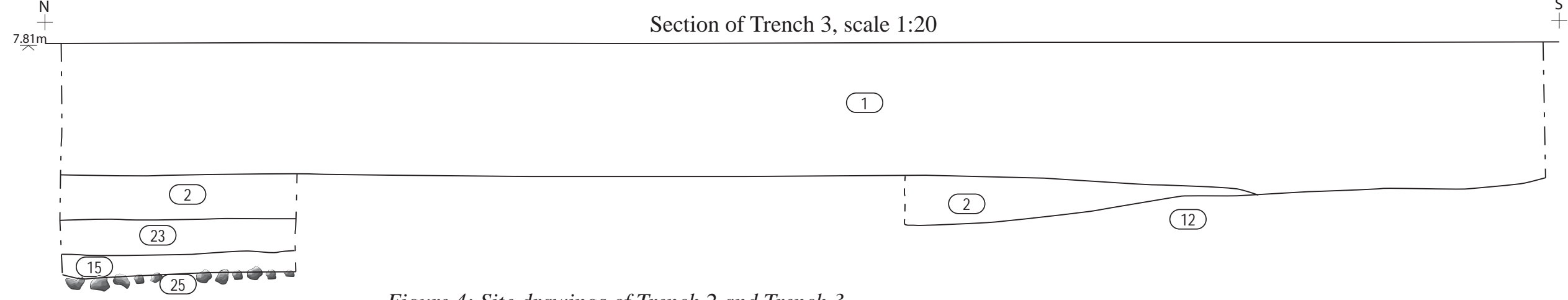
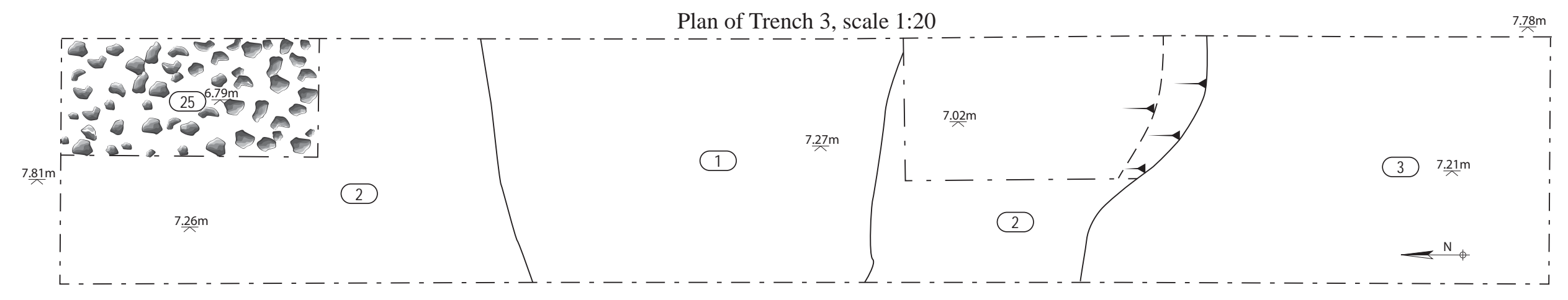
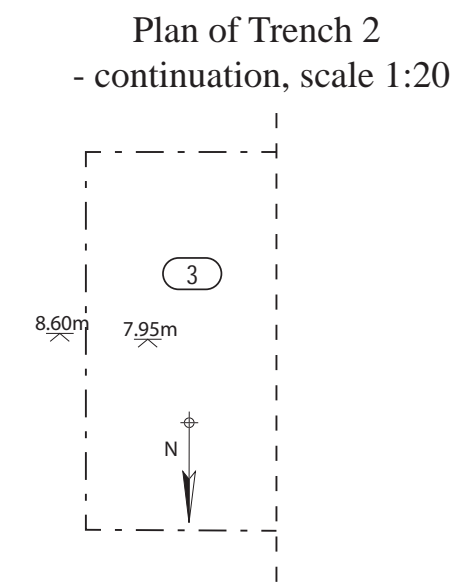
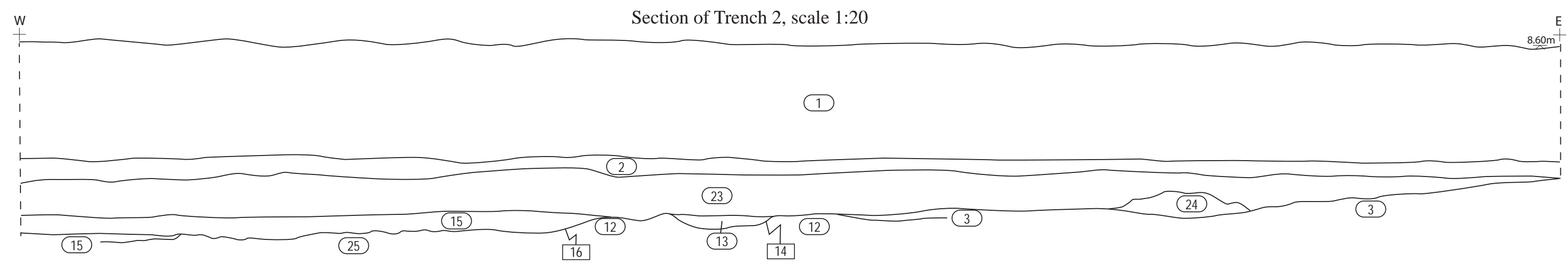
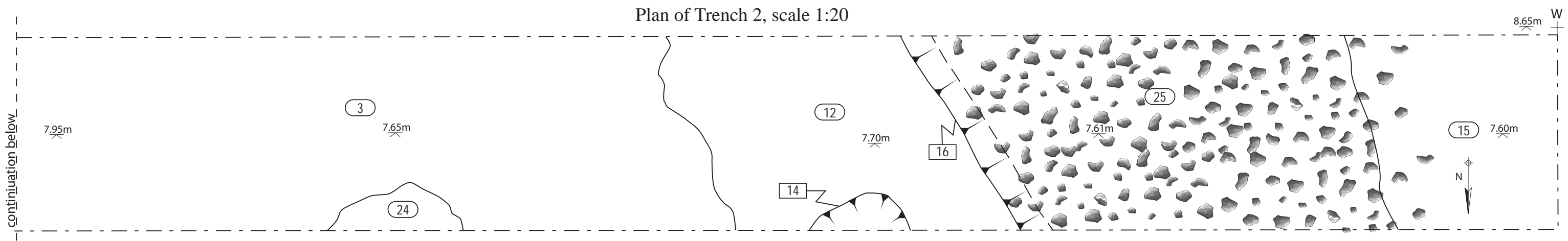


Figure 4: Site drawings of Trench 2 and Trench 3



Plate 1. Trench 1 (looking NW)



Plate 1. Trench 2 (looking W)



Plate 1. Trenches 3 & 4 (looking N)



Plate 1. Trench 4 Feature 19



Plate 1. Trench 1 Feature 7



Plate 1. Trench 1 Feature 11



Plate 1. Trench 3 Feature 25



Plate 1. Trench 3



Plate 1. Trench 3 Feature 25



Plate 1. Trench 3