



AN ARCHAEOLOGICAL EVALUATION

**LAND SOUTH OF
KENAVON DRIVE
READING
BERKSHIRE**

March 2019

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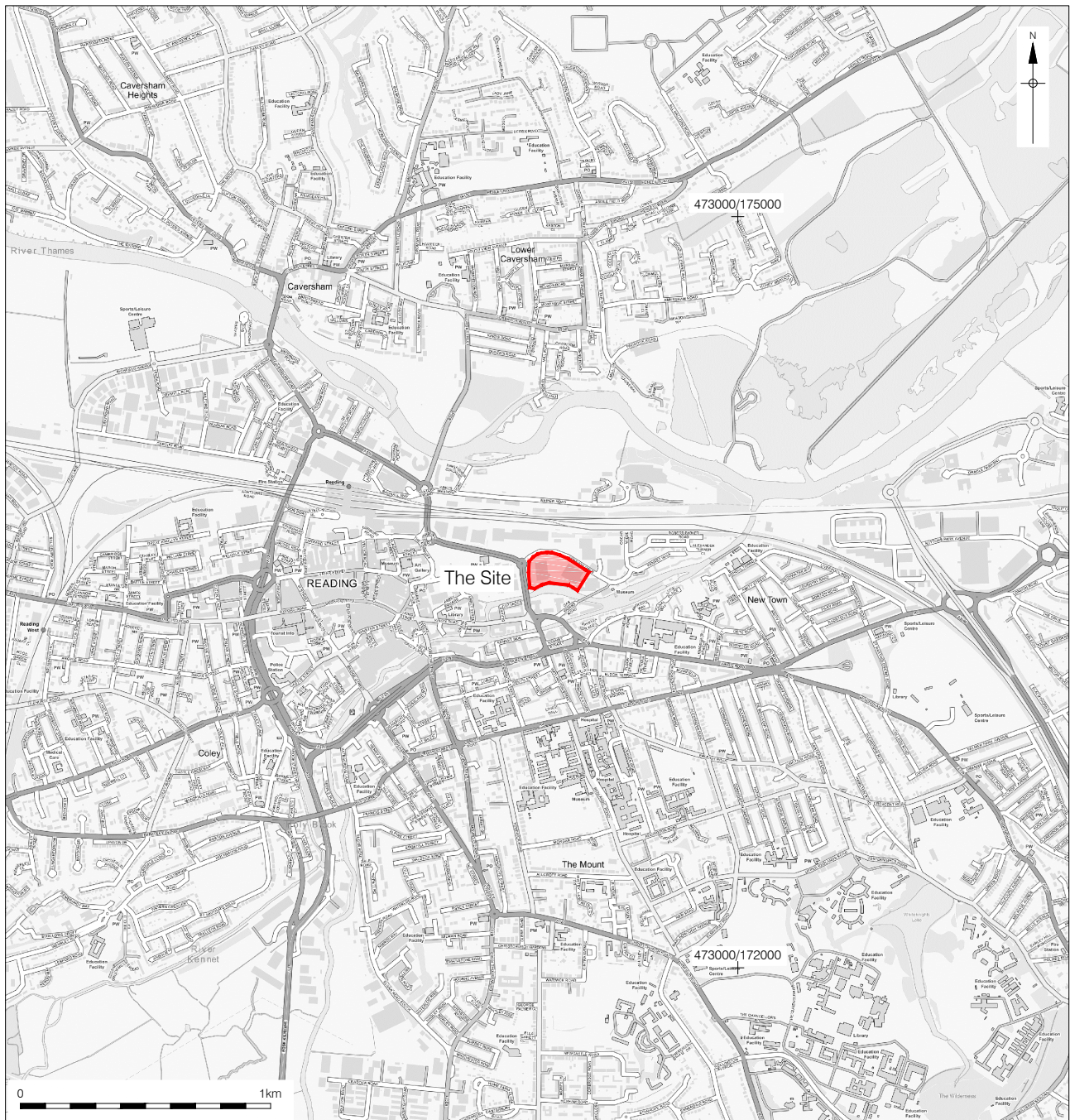
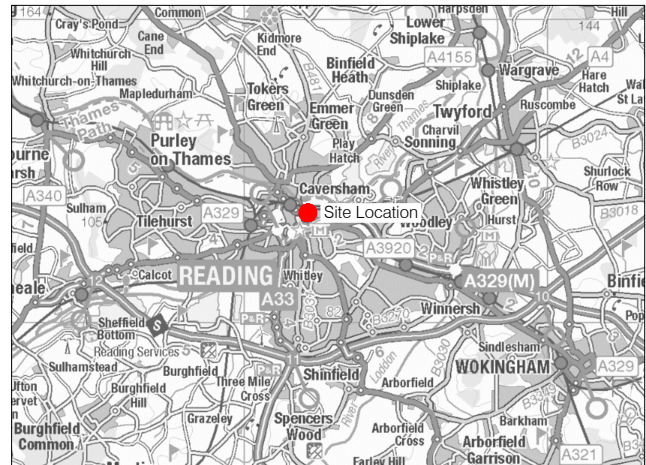
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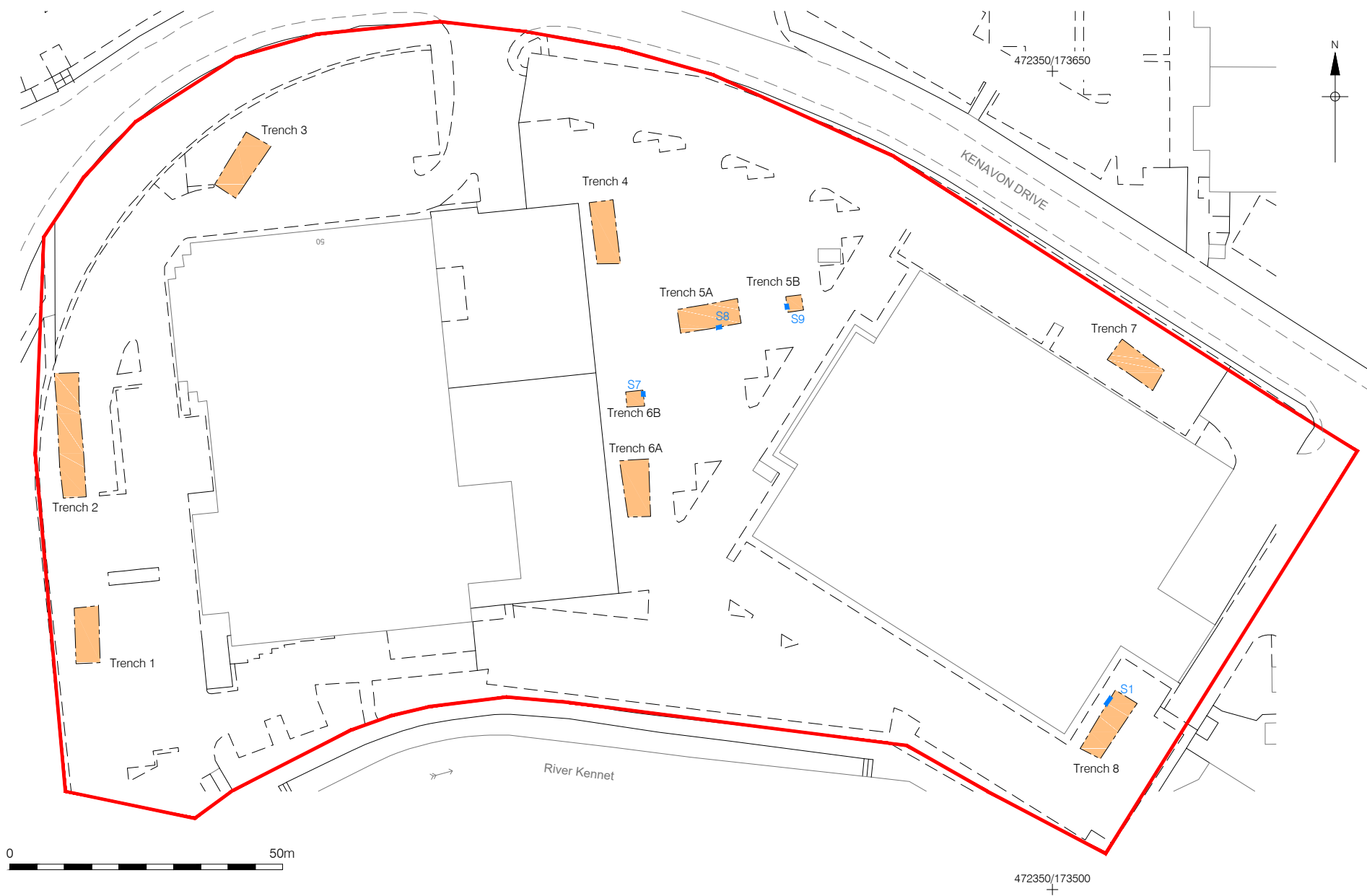
1 ABSTRACT

- 1.1 This report details the result of an archaeological evaluation undertaken on land south of Kenavon Drive, Reading RG1 3JD in the county of Berkshire, centred at NGR SU 7227 7357. The work was undertaken by Pre-Construct Archaeology Limited between the 4th and 20th February 2019, and was commissioned by CgMs Heritage on behalf of Berkeley Homes Western.
- 1.2 Ten evaluation trenches were excavated reaching depths of up to 4.50m below current ground level, with natural chalk bedrock identified within Trenches 1, 2, 6A and 6B. Superficial deposits of gravel were seen within Trench 5B, and alluvium was encountered within Trenches 1, 3, 4, 5A, 7 and 8.
- 1.3 One feature was seen that predated the Huntley and Palmer Biscuit Factory within Trench 7; this was a singular pit that contained possible industrial waste.
- 1.4 The Huntley and Palmer Biscuit Factory dominated the site and local landscape between 1846 and 1990, and remains of the factory were seen within all trenches with the exception of Trench 5. Ground raising activity prior to the construction of the factory was seen, but across the site the construction of the factory appears to have had a significant impact upon the potential for earlier archaeological remains. The evaluation trenches suggest that the late 20th century clearance and redevelopment has removed all but the basements and foundation structures of the Huntley and Palmers Biscuit Factory.
- 1.5 All ten trenches were sealed by layers of modern made ground beneath the modern surface.
- 1.6 No archaeological features pre-dating the post-medieval period were observed during the evaluation.

2 INTRODUCTION

- 2.1 An archaeological evaluation was undertaken by Pre-Construct Archaeology Limited on land south of Kenavon Drive, Reading, Berkshire RG1 3JD. The site is bounded by Kenavon Drive to the north, Forbury Road to the west, the River Kennet to the south and Meridian House to the east. Overall the site measures approximately 3ha in size and is centred at NGR SU 7227 7357 within the county of Berkshire (Figure 1).
- 2.2 The archaeological investigation was undertaken in accordance with an approved Written Scheme of Investigation prepared by CgMs Heritage (Clarke 2019) and following Historic England guidelines.
- 2.3 The site is not located within a World Heritage Site, Historic Battlefield or Historic Wreck site. The proposed development is subject to policies contained within the National Planning Policy Framework (NPPF) and the Reading Borough LDF Core Strategy. The Scheduled Monument of Reading Abbey (Clunic and Benedictine Monastery and Civil War earthwork) (DBF97, 1007932, SU 7171 7360) is located on the opposite side of Forbury Way.
- 2.4 The work was undertaken in response to an archaeological condition attached to planning consent granted by Reading Borough Council under application number 17/0509. Prior to the evaluation, and to further comply with planning conditions, a geoarchaeological deposit modelling exercise was undertaken by QUEST (2016). The planning application was supported by an desk-based assessment (Clarke 2015) which set out the full archaeological and historical background to the site.
- 2.5 The archaeological evaluation was supervised by Stacey Amanda Harris and was project managed by Chris Mayo, both of Pre-Construct Archaeology Limited. The work was monitored by Roland Smith, Archaeological Officer for Berkshire.
- 2.6 The completed archive comprising written, drawn, and photographic records and artefacts will be deposited with the appropriate local museum.
- 2.7 PCA allocated the unique site code BKDR19, this was used to identify all elements of the fieldwork archive.





3 PLANNING BACKGROUND

3.1 National Guidance

- 3.1.1 The National Planning Policy Framework (NPPF) was adopted in 2012 and was republished in February 2019. The NPPF constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications.
- 3.1.2 In considering any planning application for development the local planning authority will be guided by the policy framework set by the NPPF, by current Local Plan policy and by other material considerations.

3.2 Local Policy

- 3.2.1 Local policy is contained within the Reading Borough LDF Core Strategy, adopted January 2008 (relevant policy CS33) and the LDF Sites and Detailed Policies Document, adopted in 2012 (relevant paragraph 9.1.9).

3.3 Local Designated Heritage Assets

- 3.3.1 The Scheduled Monument of Reading Abbey (Clunio and Benedictine Monastery and Civil War earthwork) (DBF97, 1007932, SU 7171 7360) is located on the opposite side of Forbury Way.

3.4 Planning Permission

- 3.4.1 Planning consent has been granted by Reading Borough Council under application number for the:

Demolition of the two existing retail (Homebase and former Toys R Us) structures and the erection of new buildings ranging between 2 and 11 storeys in height, providing 765 (18 x studio, 302x1, 409x2 and 36x3- bed) residential units (Class C3), 5 commercial units (1x flexible Class A1-A4, B1 or D1-D2, 1x flexible D1 or D2, 1x flexible Class A1- A5, 1x flexible Class A3 or A4, 1x flexible A1-A5 or D1-D2 uses), various works to the public realm, including a new riverside square, landscaping, accesses, parking and associated works.

- 3.4.2 The consent included an archaeological condition as follows:

6 No development (including demolition) shall take place within the site until the applicant, or their agents or their successors in title, have secured and implemented a programme of archaeological work (which may comprise more than one phase of work) in accordance with a written scheme of investigation, which has been submitted to and approved in writing by the local planning authority. The development shall only take place in accordance with the detailed scheme approved pursuant to this condition.

- 3.4.3 In accordance with this condition, the client's archaeological consultant CgMs Heritage agreed a scope of first stage evaluation works with the Archaeology Officer for Berkshire County, Roland Smith. The evaluation was designed within a WSI (Clarke 2019) which was approved by Mr Smith.

4 GEOLOGICAL AND TOPOGRAPHICAL BACKGROUND

The geological and topographical background cited below is produced from the Desk Based Assessment (Clarke 2015) and the Written Scheme of Investigation (Clarke 2019).

4.1 Geology

4.1.1 The British Geological Survey indicate that the solid geology of the site consists of Seaford and Newhaven Chalk Formation. Superficial deposits consist of Taplow Gravel in the western part of the site, with alluvium in the eastern part of the site.

4.1.2 In 2002, a programme of archaeological investigation was undertaken on the Former Bus Depot site, immediately to the southeast of the site. Underlying gravels were encountered at a depth of 4.45m below ground level, which were overlain by a horizon of alluvial deposits approximately 2m thick. The alluvial horizon was sealed by up to 2.70m of 19th and 20th century made ground. Assessment of the deposits overlying the gravel, were considered to be alluviation without peat formation (Clarke 2015, 8).

4.1.3 The site has been subject to geotechnical and geoarchaeological study (Delta Simons 2013 and Young 2016, respectively); the first report summarized a sequence at the site as follows:

Ground conditions generally comprised asphalt over Made Ground of gravelly sandy clay to a maximum depth of 4.0 m bgl. Made Ground was generally underlain by Alluvium Deposits, comprising gravelly sand and clay, to a maximum depth of 5.5 m bgl, over chalk. However, Alluvium was absent in some locations and Made Ground directly overlaid the chalk;

4.1.4 The geoarchaeological work is summarized as follows:

Within the site itself, the surface of the Chalk rises sharply from east (32-33m OD) to west (ca. 36-37m OD). Shepperton Gravel is present in the southern and eastern areas of the site, and comprises the sands and gravels of a high-energy braided river system. Where the Shepperton Gravel was recorded its surface is relatively even, generally lying at between ca. 32.5 and 34m OD. The Upper Alluvium rests either on the Shepperton Gravel or the bedrock Chalk. The deposits of the Upper Alluvium are described as predominantly silty or clayey and is relatively even across the site, generally lying at between ca. 36 and 37m OD. The sediments of the Upper Alluvium are indicative of deposition within low energy fluvial and/or semi-aquatic conditions during the Holocene. The high mineral content of the sediments may reflect increased sediment loads resulting from intensification of agricultural land use from the later prehistoric period onward, combined with the effects of rising sea level. Between ca. 1 and 3m of made ground caps the alluvial sequence across the site. The made ground is generally thicker towards the centre and east of the site (2-3m), with less than 1m recorded towards the west. (Quest 2016 in Clarke 2019, 6)

4.2 Topography

4.2.1 The topography of the site is roughly level a height of 40m Above Ordnance Datum (AOD). "The post-medieval and modern development of the site has obscured the natural topography

of the site" (Clarke 2019, 6).

- 4.2.2 The River Kennet forms the southern site boundary, whilst the River Thames lies approximately 300m to the north.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The archaeological and historical background is reproduced here from the WSI (Clarke 2019). Relevant entries from the Berkshire Historic Environment Record are given in brackets with the corresponding NGR.

5.1 Prehistoric

- 5.1.1 The alluvial deposits associated with the River Kennet which underlie the site are of Holocene date. Therefore, these deposits are considered to have no potential for in-situ of Lower and Middle Palaeolithic date. In the Upper Palaeolithic, hunter-gathers exploited valley floor locations.
- 5.1.2 Within the study area, no Mesolithic finds are recorded. Here, as elsewhere in lowland Britain, sites tend to occur close to rivers or other water sources. However, the valley floor would have been avoided by settlement activity because of the risk of flooding. During the Neolithic and Bronze Ages, the pace of woodland clearance to create arable and pasture-based agricultural land varied regionally and locally, depending on a wide variety of climatic, topographic, social and other factors. The trend was one of a slow, but gradually increasing pace of forest clearance. Within the Thames Valley, it is likely that the first farmers initially cleared areas along the valley floor and adjacent terraces, where lighter, gravel-based soils occur.
- 5.1.3 Geoarchaeological boreholes taken on the site immediately to the northeast of Kenavon Drive identified a possible north-south aligned palaeochannel, the base of which was recorded at a depth of 33m AOD. Within the palaeochannel was a horizon of peat which was radiocarbon dated to the Neolithic, with the upper horizon recorded at a depth of 33.2m AOD (MRM17508, SU 7248 7358).
- 5.1.4 Contemporary evidence from nearby comprises a rolled and chipped flint axe of Neolithic date found at the Gasworks approximately 400m to the east (MDR11180, SU 72900 73700), and Early Neolithic flakes and pottery and flints of late Neolithic – Bronze Age date were found at the Abbey Church approximately 200m to the west (MDR11355, MDR3901, SU 72020 73600).
- 5.1.5 Excavations at Crane Wharf, approximately 250m to the southwest of the site, found fragments of worked wood, with tool marks suggesting that they were Neolithic in origin (MRD7396, SU 71950 73350).
- 5.1.6 By the 1st millennium, i.e. 1000 BC, the Thames Valley was probably a mix of woodland, tracts of open farmland, punctuated by farmstead settlements and burial monuments, although this floodplain location may have been avoided due to seasonal flooding.
- 5.1.7 A small assemblage of worked flint, attributable to the Prehistoric period in general, was found during archaeological investigations at Forbury Gardens, approximately 350m west of the site (MRM15881, SU 71877 73581).

5.2 Iron Age & Roman

- 5.2.1 The Iron Age is characterised in this region by increasing settlement stability and the large-scale organisation of the landscape, developments that began in the Late Bronze Age. Settlement evidence in the wider Thames Valley is plentiful and diverse, ranging from individual farmsteads occupied by a single household, to hillforts and enclosed settlements holding much larger communities.
- 5.2.2 However, within Reading Borough there is little evidence for large-scale Iron Age settlement. Within a 400m radius of the study site, the Berkshire HER records the discovery of a netting needle, associated with Roman artefacts, but of late Iron Age date found in the River Kennet/Gasworks site approximately 75m to the south of the site (MDR3890, SU 7238 7347).
- 5.2.3 The significance of Reading in the Roman period is dwarfed by the Roman town of Calleva at Silchester, approximately 16km to the south. Indeed, Calleva was the focus of the Roman road system in the area, but many goods must have been transported by river and it is possible that Reading could have been a port serving Calleva. Archaeological investigations within the town have recorded enclosure ditches containing quantities of Roman pottery suggesting settlement nearby.
- 5.2.4 Within a 400m radius of the study site the Berkshire HER also records the discovery of a burial at Crane Wharf, approximately 250m to the southwest of the site, thought to be Iron Age or Roman in date (MRD7402, SU 71950 73350). Flood defences and stakes associated with this general period were also recorded on site (MRD7399, MRD7400, SU 71950 73350).
- 5.2.5 Fragments of residual Iron Age pottery have also been recovered from the site at Crane Wharf (MRD15595, SU 71890 73351) and a short distance to the north within the Scheduled area (MRD11345, SU 71900 73520) of Reading Abbey.
- 5.2.6 A limited scatter of Roman finds have been recorded within the study area. The closest record finds relates to the discovery of Roman pottery, a 2nd century coin and antler implement during bridging works over the Kennet for the Gasworks approximately 75m to the south of the site (MDR3890, SU 7238 7347).
- 5.2.7 Fragments of pottery and other domestic finds have been recovered in the western part of the study area, either within, or in close proximity to the Scheduled Monument (MRD3898, SU 72000 73600; MRM16077, SU 71895 73460; MRD15596, SU 71966 73427).

5.3 Anglo-Saxon

- 5.3.1 In 871 the Anglo-Saxon Chronicles record that the Danes entered Wessex at Reading. Sometime after this invasion, a rampart was built on the western edge of the settlement, the side not defended by the Thames and Kennet. The HER point data locates the records approximately 250m northeast of the site (MRD3907, MRD3908, SU 72500 73700).
- 5.3.2 Archaeological investigations within, and immediately adjacent to Reading Abbey, have identified a small number of finds and features dating to the Anglo-Saxon period. The most

significant of these discoveries relates to the excavation of 40 burials thought to be Anglo-Saxon in date (MRD1378, SU 72000 73550). Finds from this period in this area consist of a spearhead (MRD11363, SU 72000 73550) and a scatter of pottery sherds (MRD3902, SU 72020 73600; MRD11362, SU 71900 73510; MRD11364, SU 71900 73520; MRD15554, SU 72022 73598; MRD15596, SU 71966 73427; MRM15882, SU 71885 73589). This evidence is indicative of small scale Anglo-Saxon activity taking place on the site of Reading Abbey prior to its establishment following the Norman Conquest.

5.4 Late Medieval

- 5.4.1 The Domesday survey of 1086 records two manors at Reading, one belonging to Battle Abbey and the other to the King. During this period the study site lay within the Kings estate, which included a church, 29 dwellings and 12 acres of meadows. In view of the study site's location on the floodplain, it is likely that at the time of the Domesday Survey the site was classed as meadow.
- 5.4.2 In 1121 the King founded Reading Abbey on behalf of the Clunic Order. By the mid-13th century, control of the Abbey had passed to the Benedictine Order. Within a hundred years Reading Abbey had become one of the ten wealthiest Abbey's in the country, only to ransacked and the land sold off following the Dissolution of 1539. The majority of HER records listed within the Scheduled area relate to key buildings and structural elements associated with the Abbey identified during the extensive archaeological excavations which have taken place on site, including the Chancel, Treasury, Chapter House, Infirmary, Cloisters and Church (MRD15552, SU 72002 7359; MRD15561, SU 72008 73578; MRD15556, SU 72017 73604; MRD15553, SU 72020 73598; MRD15562, SU 72003 73548; MRD15565, SU 72104 73578; MRD15560, SU 71985 73555).
- 5.4.3 A plan drawn up in 1901 depicts the layout of the Abbey buildings and grounds, all of which is located to the west of Forbury Road. The Abbey's precinct wall known as the 'Plummary Wall' follows the line of Forbury Road, located immediately to the west of the site boundary. The wall took its name from the Abbey's Lead Workshops known as plummeries which were built up against it (Philips 1980). Remains of the precinct wall was discovered at the junction of Kenavon Drive and Forbury Road approximately 300m (MRD1384 & ERM492, SU 72062 73649). During the late 20th century Forbury Road was widened from a single carriageway road into a dual carriageway. During these works elements of the Plummary Wall were identified retaining the eastern side of the original single carriageway road. Elements of the wall were relocated and installed along the central reservation, while the remaining elements were subsequently sealed beneath the dual carriageway extension (Paul Chadwick *pers. comm.*).
- 5.4.4 Recent excavation on the north bank of the River Kennet, a short distance to the south of the Scheduled area, have revealed remains of wharfs, revetments, warehouses, buildings, and smaller discrete features thought to be associated with the Abbey complex (MRD1407, SU 71980 73450; MRD7406, SU 71950 73350; MRD7407, SU 71950 73350; MRD15577, SU

71970 73404; MRD15585, SU 71976 73447; MRD15588, SU 71970 73404).

5.4.5 The remains of a possible motte, constructed within the Abbey precinct in 1150 is thought to be present within Forbury Gardens, to the west of the Abbey remains. It is likely that the earthwork was subsequently modified during the Civil War and by later landscaping (MRD3934, SU 71900 73640).

5.4.6 Later cartographic [sources] (1611 Speed's map of Reading) shows the study site located outside the Abbey precinct wall, to the east of the line of the road which will subsequently become Forbury Road. The site is located within flood meadow.

5.5 Post-Medieval & Modern

5.5.1 Speed's map of 1611 depicts the site within flood meadow immediately to the north of the River Kennet.

5.5.2 By 1643 Reading had become a strategic location during the Civil War, resulting in Royalist forces creating a significant circuit of earthwork defences to protect the town. The HER depicts the line of the defences as following higher ground following the alignment of Forbury Road outside the boundary of the site (MRD15703, SU 71058 73227). It is probable that the Royalists utilised the remains of the Abbey precinct wall as part of their defences in this location. 3.27 Roque's map of 1761 shows the site occupied by flood meadow and gardens associated with properties fronting onto Forbury Road.

5.5.3 Tomkin's map of 1802 depicts the western part of the site which contains a number of detached buildings associated with 'Blakes Wharf' and 'The Grange'. The buildings are most likely to facilitate the storage and movement of goods via the River Kennet.

5.5.4 The Plan of Reading Borough of 1807 is less detailed only showing the key roadside buildings belonging to 'Grange Wharf', while the eastern part of the site is still shown as field plots. The layout of the site remains unaltered in 1813, although the western part of the site is now called 'Blake's Wharf'.

5.5.5 The 1848 St. Lawrence Reading Tithe Map and associated Apportionment records that the developed area of the site has increased with the 'House, Cottages and wharf' now extending into the central part of the site. 'Grange Close House and premises' have also been extended to the east, while the remaining areas are recorded as meadow.

5.5.6 The Estate Map of John Belgrave and a general Map of Reading of approximately the same date, indicate that several buildings in the north of the site have been demolished, while two detached buildings are present in the southwest corner of the site, and several buildings of various sizes are present in the eastern part of the site.

5.5.7 In 1846, The Huntley and Palmer Biscuit Factory was opened on a land to the east of Forbury Road, on land now occupied by the site (MRD15661, SU 72347 73544). The factory was soon expanded with an additional number of buildings constructed. The opening of the Kings Road factory pioneered the first continuously running and integrated machinery for biscuit

manufacture. The location of the factory by the Kennet and Avon Canal (MRD5764, SU 72300 73520) allowed Huntley and Palmers biscuits to be transported to the West Country. The railway at Reading was also used to transport the biscuits and the company constructed its own private sidings within the factory. Surviving elements of this manufacturing complex was found during excavations on the site immediately to the southeast of the site identifying elements of a smithy, fitting shop and engine house. The remains were recorded at approximately 0.60m below existing ground level.

- 5.5.8 The 1879 Ordnance Survey map is the first map to depict the Huntley and Palmer Biscuit Factory. The greatest concentration of buildings is located in the western part of the site adjacent to Forbury Road, with a scatter of small industrial buildings in the central and eastern parts of the site. Railway spurs from the main London to Reading railway lead into the site from the north. The factory also occupies land on the south bank of the River Kennet.
- 5.5.9 The GOAD Insurance Plan of 1895 (Figure 10) provides a detailed picture of the extensive complex dominated by the 'New Biscuit Factory' in the west of the site, as well as flour stores, machine shops, a smithy, wharf buildings, and the 'New Cake Bakery' in the eastern part of the site. Only minor alterations to the layout of the site occur between 1899 and 1962.
- 5.5.10 In 1979 the area adjacent to Forbury Road has been cleared. This is at a similar time to the closure of the factory. The factory complex was ultimately demolished during the 1990's (MRD15661, SU 72347 73544).
- 5.5.11 The site was subsequently redeveloped by the early 2000s, represented by the commercial properties present within the site until their demolition in late 2018.

6 METHODOLOGY

- 6.1 The purpose of the archaeological evaluation was to determine the presence or absence of surviving archaeological deposits at the site and, if present, to assist in formulating an appropriate archaeological mitigation strategy. All works were undertaken in accordance with the guidelines set out by Historic England and the Chartered Institute for Archaeologists and the site-specific Written Scheme of Investigation (WSI) (Clarke 2019).
- 6.2 The evaluation consisted of ten trenches (Trenches 1, 2, 3, 4, 5A, 5B, 6A, 6B, 7 and 8) which were excavated to the top of the first significant archaeological horizon with further excavation in the form of sondages in order to reach natural ground. As natural ground was found below safe working depths in eight of the trenches, these were stepped to allow for safe access (Trenches 1, 2, 3, 4, 5A, 6A, 7 and 8). Trenches 5B and 6B were not stepped, as access within these trenches was not necessary, and all recording was done from the top of the trench.
- 6.3 The trenches were excavated using a 13 ton 360°-mechanical excavator. After the tarmac and well compacted bedding layers were broken and removed, the mechanical excavator used a 1.8m flat bladed grading bucket to remove modern overburden under constant archaeological supervision. Spoil was mounded at a safe distance from the edges of the trenches.
- 6.4 Machine excavation continued in spits of 100mm until either significant archaeological strata were found or undisturbed natural ground exposed. Where necessary, sondages were broken through the post-medieval concrete and brick floors to allow further excavation to natural deposits.
- 6.5 Following machine excavation, relevant faces of the trenches that required examination or recording were cleaned and the investigation of archaeological features was conducted using appropriate hand tools. Due to the elevated levels of lead, TPH and PAH recorded within the made ground horizons during previous site investigations (Delta Simons 2013), PCA staff were required to wear appropriate personal protective equipment.
- 6.6 All trenches were found to contain a near surface horizon of demolition material undoubtedly derived from the clearance of the factory in 1990. This horizon comprised loose rubble which, when disturbed, lost its integrity and thus became prone to collapse. This hazard, coupled with the known ground contaminants within the made ground horizons, rendered extensive cleaning of the trenches both impractical and unduly risky. Therefore archaeological trench cleaning was limited only to areas of specific interest or complexity. Archaeological features (stratigraphic layers, cuts, fills, structures) were investigated and recorded in section at 1:10 or 1:20 (depending on complexity) using standard single context recording methods. All trenches and features were located and planned by PCA staff using GPS survey equipment or permatrace as appropriate. A full digital photographic record was made during the archaeological investigations.

6.7 The table below details the dimensions all the trenches as excavated:

Trench	Length (m)	Width (m)	Highest Level (m OD)	Lowest level (m OD)	Orientation
1	10.42	4.40	39.03	36.06	N-S
2	22.70	4.49	39.12	37.74	N-S
3	11.20	5.27	39.06	35.26	NE-SW
4	11.81	4.44	38.89	35.99	N-S
5A	11.23	4.58	38.38	35.93	E-W
5B	2.91	2.88	38.34	35.24	E-W
6A	10.54	5.28	38.79	35.40	N-S
6B	3.26	2.81	38.72	36.22	N-S
7	10.08	4.66	38.31	35.79	NW-SE
8	12.51	4.68	38.31	33.81	NE-SW

6.8 The complete archive produced during the evaluation, comprising written, drawn and photographic records, will be deposited with the appropriate local museum under the site code BKDR19.

7 ARCHAEOLOGICAL PHASING AND SEQUENCE, BY TRENCH

7.1 Introduction

7.1.1 The site has been separated into six archaeological phases, identified as follows:

- Phase 1, solid geology of chalk bedrock
- Phase 2, superficial deposits of gravel
- Phase 3, alluvial deposits
- Phase 4, post-medieval land reclamation
- Phase 5, development of the site from the 19th century onwards
- Phase 6, modern demolition

7.1.2 Not all phases were seen within every trench, as such some phases are missing from the following trench discussions.

7.2 Trench 1 (Figure 3)

Phase 1

7.2.1 A sondage was excavated to the northern end of Trench 1 to reveal chalk [54] (Plate 1) from a height of 36.23m OD and continuing below the limit of excavation (LOE) at 36.06m OD

Phase 3

7.2.2 The chalk [54] was sealed by a 1m thick layer of firm grey brown alluvial clay [57] (Plate 1). No artefactual remains were seen within this layer, but brick fragments were seen to be pushed into the upper surface at its interface with floor surface [10], this most likely related to the construction of the Huntley and Palmers Biscuit Factory.

Phase 5

7.2.3 Within the southern half of the trench, two L shaped red brick walls were seen [6] and [7]. The brick and mortar of wall [7] has been dated 1850-1900, whilst that from wall [6] has been dated 1890-1950. There was evidence of truncation to both walls to a height of 38.53m OD, with further truncation to the north of wall [7].

7.2.4 Surviving to the north of wall [7] was a floor surface [10] at a height of 37.33m OD. This floor surface was constructed of red brick with a layer of slate on top and a concrete scree, dated to 1875-1950.

7.2.5 To the south, wall [6] was built against wall [7] in such a way as to form a small space with a possible doorway to the east. Within this space the remains of a wooden frame were seen [11] (Plate 2), this consisted of upright timber posts and slats with narrow cross beams. Excavation within this part of the trench ceased at a height of 37.03m OD due to the unstable condition of the rubble backfill to the eastern side of the trench.

7.2.6 The masonry and timber seen within this trench relate to a large unlabeled building of the Huntley and Palmers Biscuit Factory as can be seen in the 1895 Goad Map (Figure 10).

Phase 6

7.2.7 The brick rubble backfill seen within Trench 1 from a height of 38.53m OD is most likely a

direct result of the demolition of the Huntley and Palmers Biscuit Factory in 1990.



Plate 1: View SE, chalk [54] and alluvium [57] below brick floor [10] Trench 1



Plate 2: View W, wall [6] and timber frame [11] Trench 1

7.3 Trench 2 (Figure 4)

Phase 1

- 7.3.1 Chalk bedrock [9] (Plate 3) was seen across the entire trench from a height of 38.62m OD, from around 0.30m below ground level, and was seen to continue below the LOE at a height of 37.74m OD. The chalk was seen to be pock-marked by patches of gravelly clay which represented natural filling of undulations in the chalk surface.

Phase 5

- 7.3.2 In the northern edge of Trench 2 a remnant of brick wall [8] was seen at a height of 38.73m

OD. This wall is possibly the northern wall of the “Machinery Sorting” room on the 1985 Goad Map (Figure 10).



Plate 3: View S, natural chalk across the entirety of Trench 2

7.4 Trench 3 (Figure 5)

Phase 3

7.4.1 The earliest deposit seen within Trench 3 was firm grey brown alluvial clay [14] from a height of 36.51m OD and continuing below the LOE at a height of 35.26m OD.

7.4.2 Within this layer were rare inclusions of oyster shell, CBM (dated 1130-1500, possibly derived from nearby Reading Abbey), animal bone and a fragment of worked stone, possibly a piece of degraded column shaft of a design and stone type used in Roman Britain (Appendix 6). The inclusions found within this deposit could suggest this layer had formed over an extended time period.

Phase 5

7.4.3 Two masonry walls [15] and [16] were seen within the eastern corner of the trench (Plate 5),

truncated to heights between 38.38m and 38.22m OD. Wall [15] had the remnants of concrete rendering, and appeared to be a later addition most likely to strengthen wall [16]. Associated with walls [15] and [16] was a 0.40m thick concrete floor [13] (Plate 4) at a height of 37.05m OD.

- 7.4.4 The walls seen within Trench 3 appear to form a central wall of a “Machinery” room seen on the 1895 Goad Map (Figure 10).

Phase 6

- 7.4.5 Across the entire trench was a 1.44m thick layer of demolition material [12] (Plate 4) including bonded masonry, rebar and concrete. This layer was seen to a height of 38.22m OD and represents the demolition of the Huntley and Palmers Biscuit Factory in 1990.



Plate 4: View E, demolition material over concrete floor Trench 3



Plate 5: View SW, brick walls [15] and [16], Trench 3

7.5 Trench 4 (Figure 6)

Phase 3

- 7.5.1 The earliest deposit seen within Trench 4 was a layer of firm brown grey alluvial clay [48] from a height of 36.69m OD, and continuing below the LOE at 35.99m OD

Phase 4

- 7.5.2 Alluvium [48] was sealed by a 0.20m thick layer of dark grey brown silty clay [47] which appeared to be redeposited alluvium with lenses of crushed chalk at its interface with layer [48].
- 7.5.3 Layer [47] was overlain by a firm yellow orange sandy silty gravel [46] from a height of 38.09m OD. This layer had occasional inclusions of CBM, indicating that it had been disturbed.
- 7.5.4 Above this to a height of 38.74m OD was a layer of dark grey silty clay [49].
- 7.5.5 These three layers appear to represent a phase of land reclamation of post-medieval date.

Phase 5

- 7.5.6 In the southern area of Trench 4 were two parallel red brick walls [43] and [44] (Plate 6). They appeared to be of identical construction, and survived to a height of 38.20m OD and 37.97m OD respectively. Brick samples taken from [43] have been dated 1875-1950. Where the full width was visible these walls were 0.4m thick and bonded with a hard mortar. A concrete slab [45] formed a surface between walls [43] and [44], and was at a height of 36.83m OD.
- 7.5.7 Brick walls [43] & [44] and concrete floor [45] correlate in alignment and location to a subway identified on the 1895 Goad Map which linked the "Flour" room and "Sugar Mill" (Figure 10).



Plate 6: View SE of walls [43] and [44], Trench 4

- 7.5.8 At the northern end of Trench 4 was a small square brick structure [38] (Plate 7). This wall

was far less substantial than [43] and [44] at just 0.22m thick and 0.58m high. It matches the location of a “coal store” within the railway yard area as seen on the 1895 Goad Map (Figure 10), supported by brick samples from this structure being dated 1875-1950.



Plate 7: View S, masonry [38], Trench 4

7.6 Trench 5A (Figure 9)

Phase 2

- 7.6.1 The earliest deposit seen within Trench 5A was a layer of firm mid brown gravel [42] from a height of 36.48m OD, and continuing below the LOE at a height of 35.93m OD (Plate 8).



Plate 8: View S, natural gravel [42] and layer [41] under modern levels, Trench 5A

Phase 6

- 7.6.2 Overlying [42] was a 0.15m thick layer of demolition rubble [41] from a height of 36.50 (Plate 8).

7.7 Trench 5B (Figure 9)

Phase 2

- 7.7.1 The earliest deposit seen within Trench 5B was a layer of firm mid red yellow sandy gravel [53] from a height of 35.34m OD, and continuing below the LOE at a height of 35.24m OD (Plate 9).

Phase 6

- 7.7.2 Sealing [53] was a 1.20m thick layer of mid grey brown gravely clay [52] with lenses of organic material from a height of 36.54 (Plate 9).



Plate 9: View S, natural gravel [53] and layer [52] under modern layers, Trench 5B

7.8 Trench 6A (Figure 7)

Phase 1

- 7.8.1 Natural chalk [56] (Plate 3) was encountered within a sondage excavated at the northern end of Trench 6A. Chalk layer [56] was seen from a height of 36.92m OD, and continued below the LOE at a height of 35.40m OD (Plate 10).

Phase 5

- 7.8.2 A 0.11m thick leveling layer of mid grey gravelly silt [55] with frequent demolition rubble inclusions in the form of brick concrete and mortar (Plate 10) was seen to overlie the chalk [56].
- 7.8.3 Overlying layer [55] was a 0.10m thick concrete floor slab [50] at a height of 37.40m OD.
- 7.8.4 Northwest-southeast wall [30] was seen across the center of the trench truncated to a height of between 37.75m and 37.64m OD. The wall and floor seen in Trench 6A are undiscernible on the 1895 Goad Map (Figure 10).



Plate 10: Natural chalk [56] sealed below layer [55] and concrete slab [50] in Trench 6A

7.9 Trench 6B (Figure 9)

Phase 1

- 7.9.1 A layer of chalk [40] (Plate 11) was seen from a height of 36.92m OD and continued below the LOE at 36.22m OD.

Phase 5

- 7.9.2 An irregular leveling layer of mid grey gravelly silt [39] with frequent demolition rubble inclusions in the form of brick concrete and mortar (Plate 11) was seen to overlay the chalk layer [40]. This layer was up to 0.10m thick, and was seen from a height of 36.97m OD.



Plate 11: View E, chalk layer [40] under demo deposit [39] in Trench 6B

7.10 Trench 7 (Figure 8)

Phase 3

- 7.10.1 Within the western part of the trench, the earliest deposit seen was a layer of dark blackish grey clay [33] with inclusions of gravel (Plate 12). This layer was seen from a height of 36.96m OD, and continued below the LOE at a height of 35.79m OD.



Plate 12: View SE, western sondage revealing alluvial layer [33], layer [36] and masonry wall foundations [19] [20] and [17] [18] in Trench 7.

- 7.10.2 The earliest deposit within the eastern part of Trench 7 was a layer of firm dark grey brown clay [32] from a height of between 36.81m and 36.18m OD (Plate 13), continuing below the LOE at a height of 36.07m OD.

- 7.10.3 These layers were considered to be alluvial horizons, discoloured by later activity.

Phase 4

- 7.10.4 Overlaying alluvial layer [33] was a 0.28m thick deposit of friable light yellow brown gravel [34]. This deposit was seen from a height of 36.79m OD.
- 7.10.5 A layer of dark brown yellow silty clay [35] sealed [34] and [33]. This layer was seen within the western sondage from a height of 37.11m OD. Layer [35] was overlain by a firm brownish grey silty clay [36] from a height of 37.63m OD (Plate 12), itself sealed by a 0.24m thick layer of friable mid brown grey gravel [37] to a height of 37.65m OD. This layer was truncated by modern services to its east, removing its relationship with wall foundation [20].
- 7.10.6 Overlaying alluvial layer [32] to the east was a 0.66m thick deposit of loose mid brown grey silty gravel [31]. This was seen at a height of between 37.51m and 36.35m OD.
- 7.10.7 Layer [31] was truncated by a steep sided and irregularly based pit [28]; this was not seen in its entirety, continuing beyond the southern LOE and being truncated in turn by the wall foundation [18] (Plate 13). Pit [28] contained two fills, the lower of these was a firm dark brownish black silty sand [27] to a height of 36.71m OD. Inclusions within this fill included a fragment of pottery (dated 1789-1900) and a fragment of smithing hearth bottom, which indicates metalworking within the vicinity. The upper fill was a firm dark grey brown silty sand [26] to a height of 37.51m OD.

Phase 5

- 7.10.8 Across the centre of Trench 7 was a northeast-southwest masonry wall foundation (Plate 14). This consisted a concrete foundation [20] measuring 1.05m wide and 0.80m thick to a height of 37.67m OD, on top of which was a red frogged brick wall [19] surviving to a height of 37.70m OD.
- 7.10.9 To the southeast of wall [19] was a further masonry foundation on a slightly different alignment (Plate 13). This consisted of concrete foundation [18] measuring 1.10m wide and 0.70m thick to a height of 37.28m OD, on top of which was a red frogged brick wall [17] surviving up to seven courses in height (between 37.50m and 37.40m OD). The lower three courses of wall [17] showed a stepped formation, mirrored in a parallel wall 1.2m to its southeast [21]. The depth of excavation here was insufficient to expose a concrete foundation, but it can be presumed that this wall was of much similar construction. Wall [21] survived to a height of 38.33m OD.
- 7.10.10 The easternmost walls in Trench 7 most likely form part of the ovens labelled on the 1895 Goad Map (Figure 10). Wall [19] on a NE-SW alignment matches that of a small railway line shown on the Goad Map, and may be associated with that.

Phase 6

- 7.10.11 Between walls [17] and [21] was a layer of friable mid yellow brown sandy gravel [29]. This layer most likely formed leveling or bedding for a floor surface between the walls at a height of 37.51m OD.

- 7.10.12 Overlaying [29] was a layer of brick rubble [22] to a height of 37.89m OD, representing the demolition of the biscuit factory.



Plate 13: View SW, layers [32] and [31], pit cut [28] and masonry wall foundation [17] [18] in Trench 7



Plate 14: View SW, layers [32] and [31], pit cut [28] and masonry wall foundation [17] [18] in Trench 7

7.11 Trench 8 (Figure 9)

Phase 3

- 7.11.1 The earliest deposit seen within Trench 8 was a layer of firm mid blue grey clay alluvium [5], from a height of 36.31m OD and continuing below the LOE at a height of 33.81m OD (Plate 15). This single deposit was therefore at least 2.5m thick.

Phase 4

- 7.11.2 Overlaying alluvial layer [5] was a 0.35m thick layer of firm dark grey brown silty clay [4] with occasional inclusions of ceramic building material. This layer appeared to be part of the post-medieval reclamation and survived to a height of 36.55m OD.

Phase 5

- 7.11.3 Layer [5] was sealed by a 0.19m thick bedding layer of compacted mid yellow brown sandy gravel [3]. This formed the bedding for a 0.10m thick concrete floor surface [2], to a height of 36.74m OD.
- 7.11.4 The concrete surface is undoubtedly part of the buildings labeled on the Goad Map as “New Cake Bakery” (Figure 10).

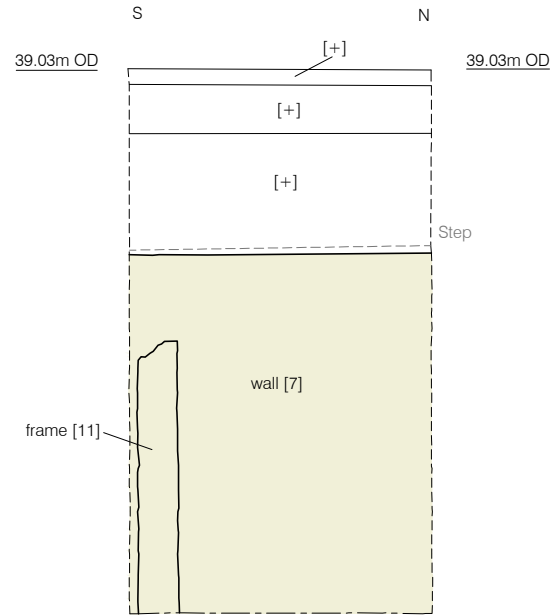
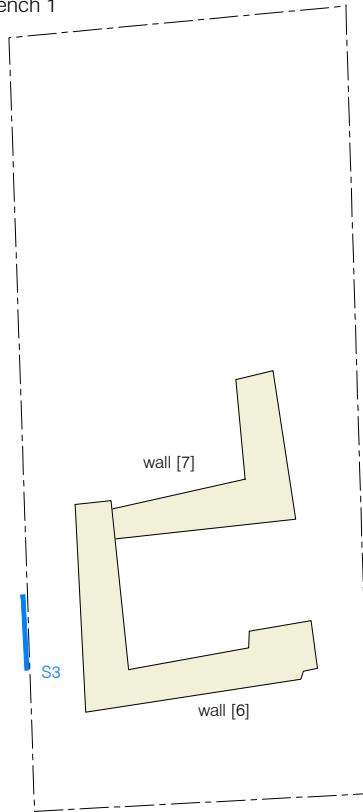
Phase 6

- 7.11.5 Sitting directly over concrete floor surface [2] was a 0.64m thick layer of brick rubble [1] to a height of between 37.46m and 37.31m OD, from the demolition of the biscuit factory.



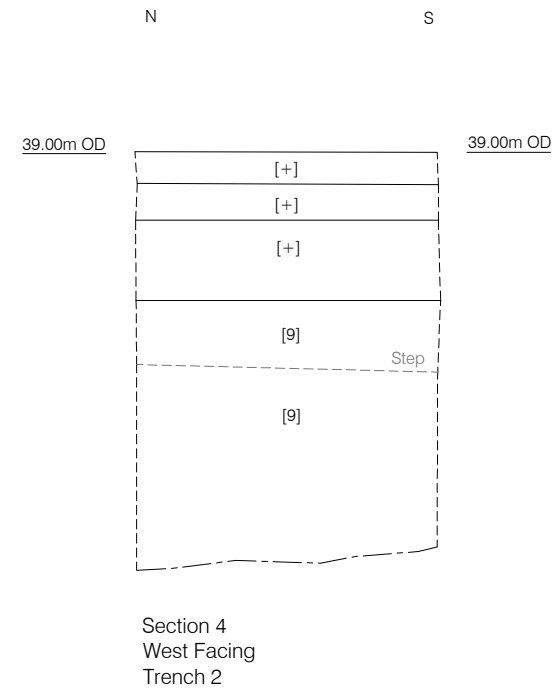
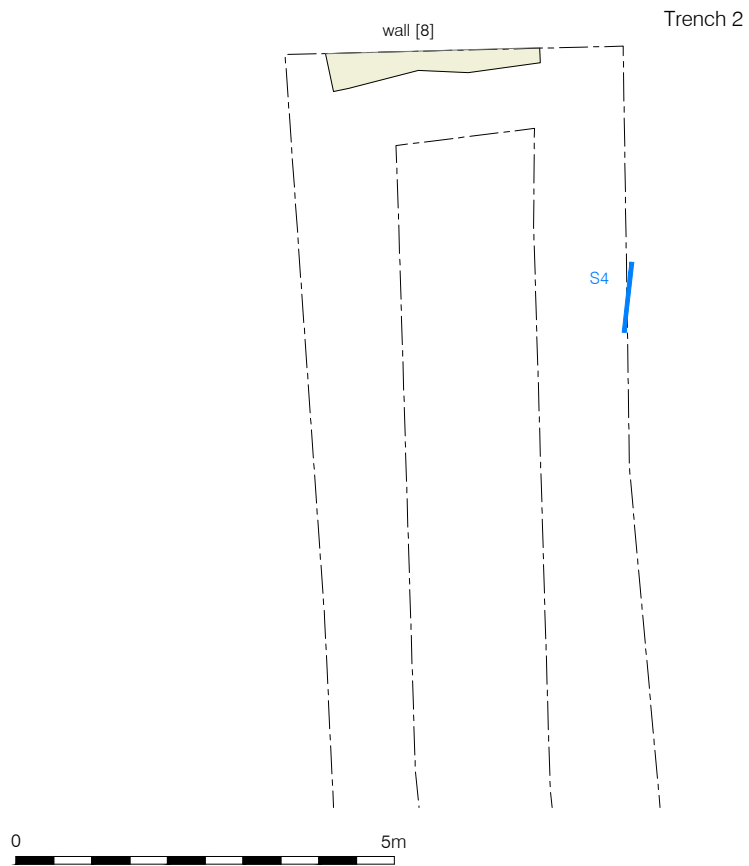
Plate 15: View NW, alluvial layer [5], made ground [4] and [3], concrete slab [2] and demolition layer [1] in Trench 8 with collapse from the modern layer in the bottom of the sondage.

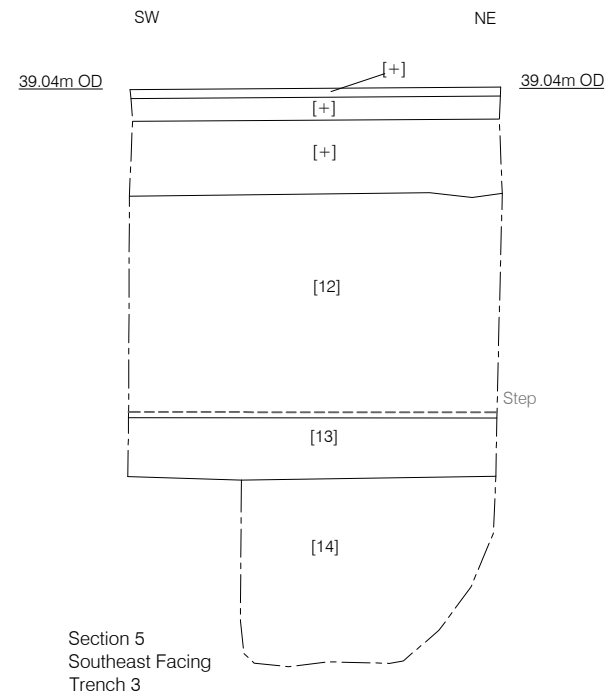
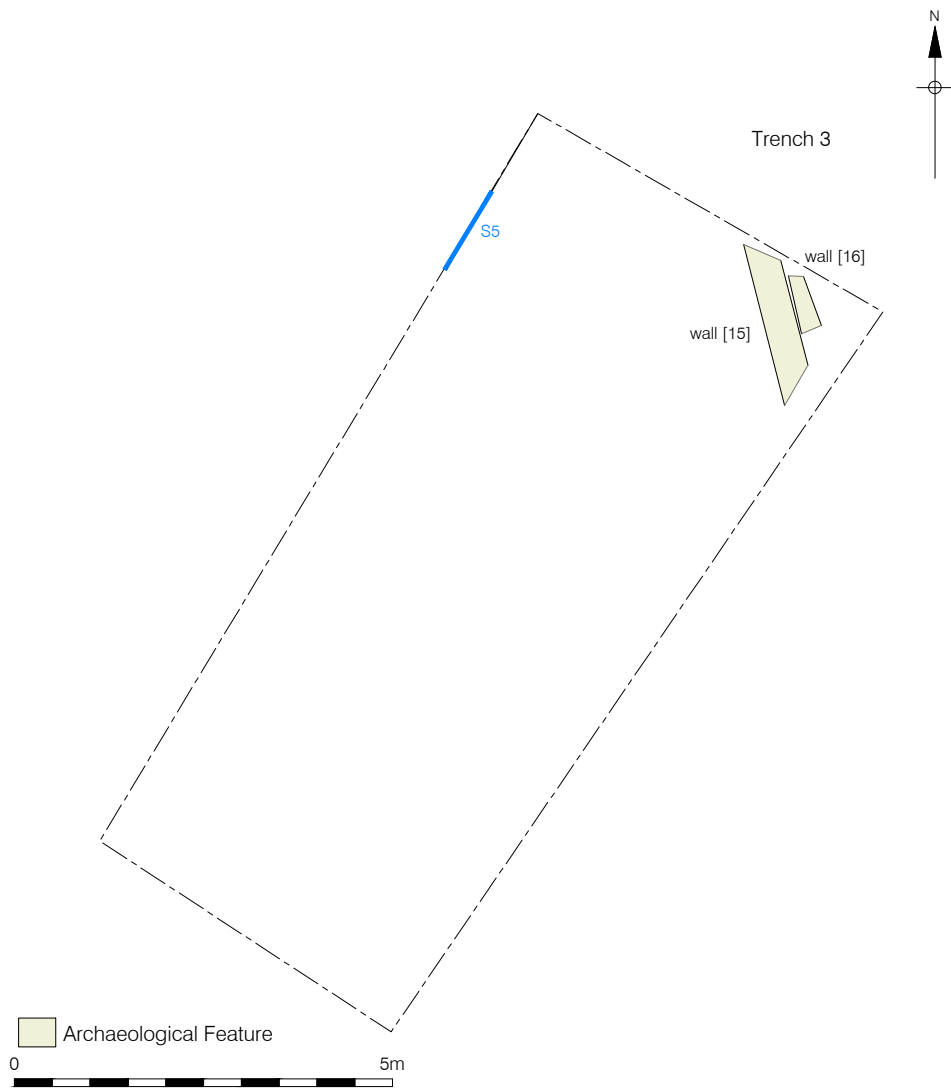
Trench 1

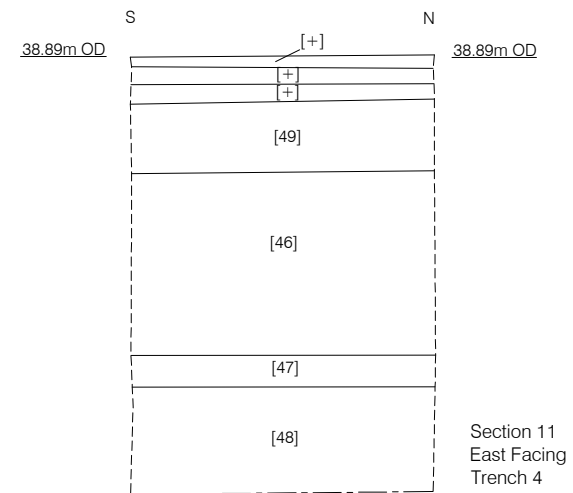
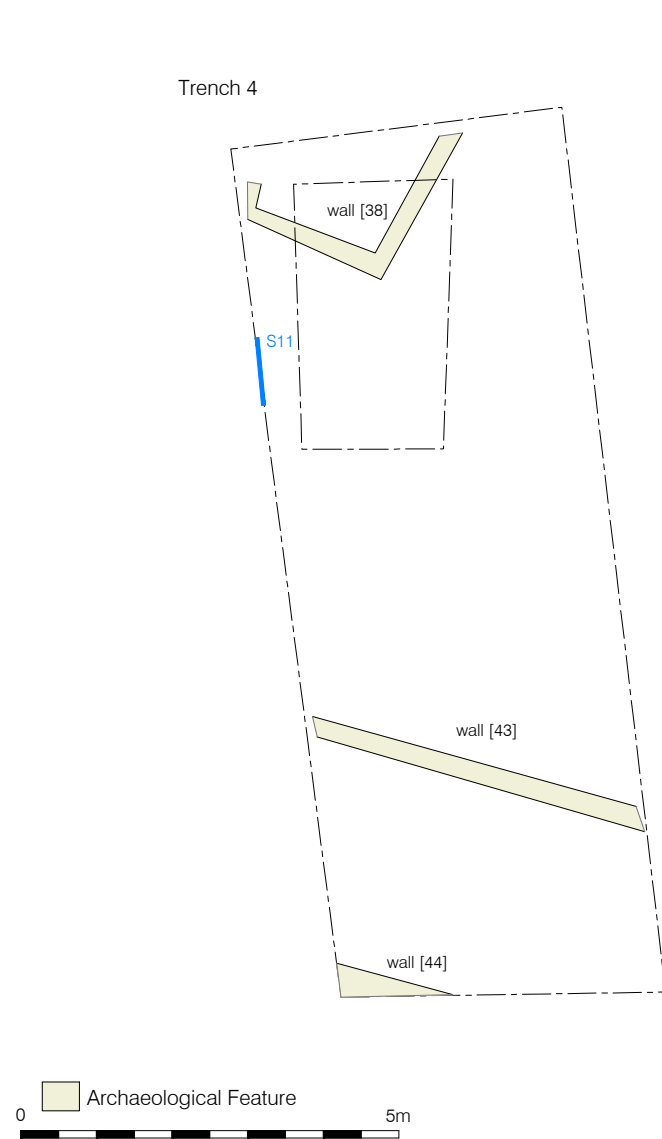


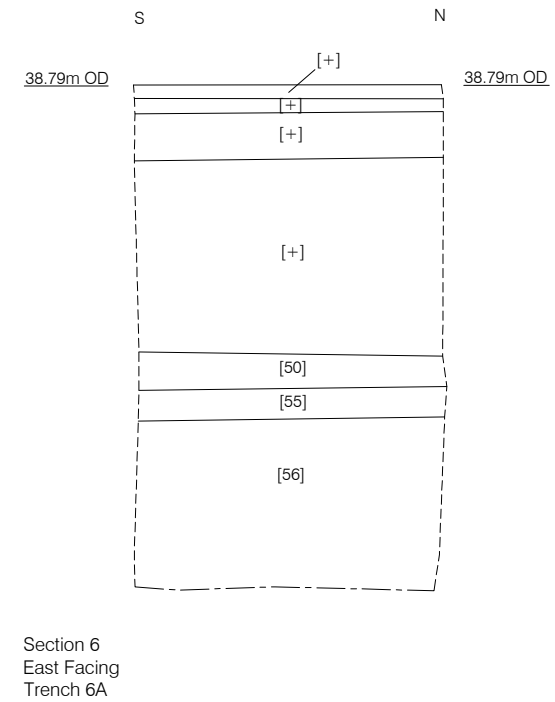
Section 3
East Facing
Trench 1

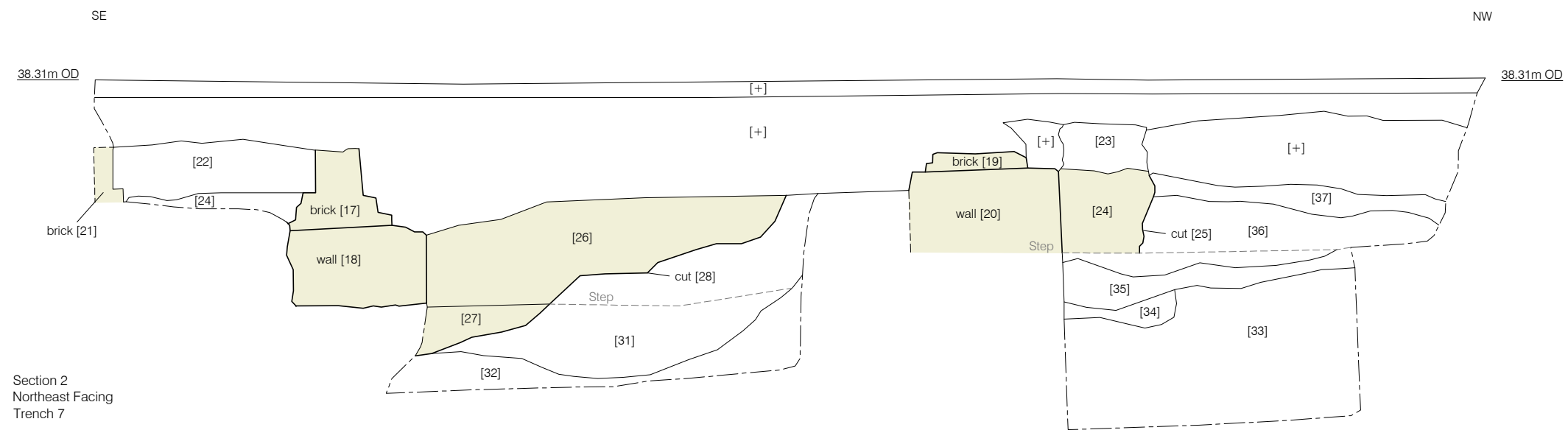
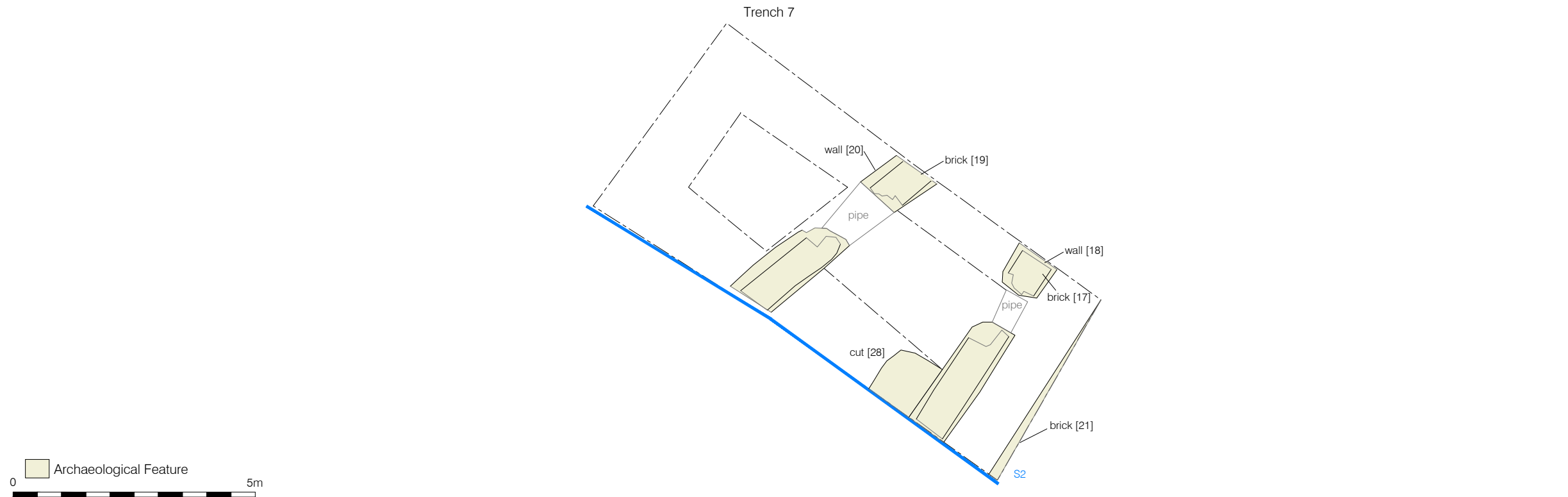












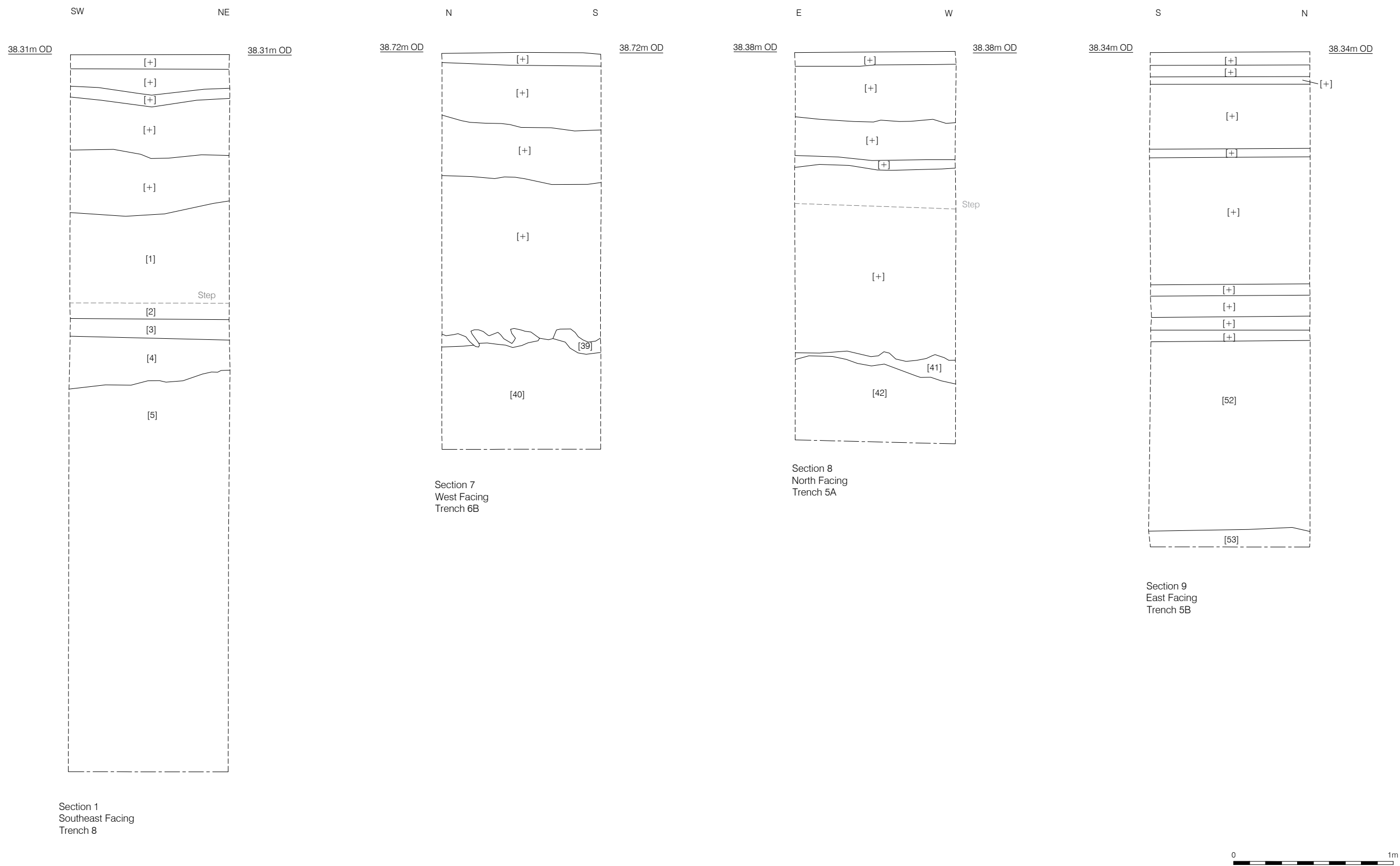


Figure 9
Sections 1, 7, 8, and 9
1:25 at A3



8 RESEARCH OBJECTIVES AND CONCLUSIONS

8.1 Research Objectives

- 8.1.1 The WSI for the evaluation (Clarke 2019) identified a series of research objectives and questions, which are answered below.

To determine the presence of any prehistoric activity within the site. Is the activity identified comparable to other contemporary sites known in the local area?

- 8.1.2 No evidence of prehistoric activity within the site was seen during the evaluation.
- 8.1.3 Whilst it is understood that riverside locations were favoured for settlement by earlier prehistoric peoples, it is believed that the potential of this area to flood would have deterred settlement.
- 8.1.4 No evidence of prehistoric activity was seen during excavations at the Former Bus Depot site directly to the east of this site.
- 8.1.5 Whilst evidence of prehistoric activity in the form of residual finds have been found at similar sites locally (within a 400m radius), none have shown evidence of in situ occupation, and therefore it is possible that prehistoric activity in the area was seasonal and opportunistic rather than settled.

To determine the presence of any Roman, Anglo-Saxon or Late Medieval activity within the site.

- 8.1.6 A fragment of stone column shaft and a fragment of drip glaze tile were retrieved from an alluvial deposit in Trench 3 in the northwest of the site. The form and stone type of the column shaft suggests that this piece is of Roman origin (Appendix 6). The tile fragment is of medieval date, and is believed to be a reject although it may well have been intended for use at the nearby abbey.
- 8.1.7 During the evaluation no evidence of in situ occupation was seen relating to the Roman, Anglo-Saxon or medieval periods. The discovery of the aforementioned medieval artefact fits with the known activity at the abbey 100m to the west, and there are records of Roman enclosure ditches within Reading town suggesting nearby settlement. Furthermore, within 400m of the site flood defences and stakes have been found along with a burial of Iron age or Roman date, and finds including a 2nd century coin and an antler implement. These records demonstrate activity in the area which could have been the source of these finds from Trench 3. Both the stone fragment and the medieval tile were found within waterlain deposits, perhaps unlikely to have washed in from afar but certainly deposited out of their original context.

To establish the presence of any Late Post-Medieval/Modern activity within the site associated with the Huntley and Palmer Biscuit Factory. How do the remains identify compare with the documentary sources detailing the layout of the factory?

- 8.1.8 The evaluation has confirmed the presence of a high outcrop of chalk in the western part of the site as suggested by previous geoarchaeological work (Young 2016). Elsewhere across

the site the chalk falls away to the east, beneath thick alluvial deposits deposited by the waters of the Thames and the Kennet. Maps of the site from the mid-19th century onwards (Clarke 2015, figs 13 onwards) show a concentration of large building footprints to the factory in the west whilst ancillary structures and railways dominate the east. The confirmation of the high chalk in the west of site suggests that the early factory was sited upon the higher ground; then as the factory grew it extended eastwards onto the reclaimed marsh. Layers of material seen within the eastern part of the site are indicative of this ground reclamation.

- 8.1.9 Towards the northeast of the site a truncated pit containing a fragment of hearth base shows this feature to be contemporary with the biscuit factory, as the factory complex included its own joiners, smithy and mechanics workshops.
- 8.1.10 Evidence of the Huntley and Palmer Biscuit Factory was seen across the majority the site in all trenches, in the form of brick walls upon concrete foundations, and concrete-floored basements.
- 8.1.11 In the south west of the site, truncated brick walls formed two rooms, one with a highly degraded timber feature of which the base was not seen, and the other where a brick floor covered with a slate and concrete scree was recorded. These two rooms sit within the “New Biscuit Factory”, as labeled on the 1895 Goad Map. Similar structural remains were recorded at the Former Bus Depot site directly to the east, where brick floors were thought to have later been covered with concrete in the location of ovens located on 20th century maps (Hammond 2002).
- 8.1.12 Sections of brick-built walls with concrete floors were seen in a number of locations across the site, and can be attributed to factory buildings as seen on the 1895 Goad Map. To the northwest of the site a double wall with a concrete floor in Trench 3 undoubtedly relates to a “Machinery” room (Figure 10). In the centre-north of the site possible elements of the subway linking the sugar mill with the flour house were seen, along with the remnants of a coal store. To the southeast of the site, in Trench 8, a concrete floor relates to the “New Cake Bakery”.
- 8.1.13 In the northeast of the site, two wall foundations are appear to represent parts of the “10 Ovens” within the “New Cake Bakery” (Figure 10), and perhaps a wall related to the railway through the site.
- 8.1.14 The overlay of the remains found to the Goad Map of 1895 serves as a useful demonstration of its accuracy.

Evaluate the likely impact of past land use and development.

- 8.1.15 During the excavations at the Former Bus Depot site directly to the East of this site a substantial amount of the Huntley and Palmers Biscuit Factor were found, including chimney stacks, basement floors, suction pipes, hearths, oven bases, engine houses, turntables, fitting shops and iron stores. These remains have been well documented within an archaeological report (Hammond 2002), however, and most lamentably, the report neglects to provide any record of the heights of survival of the remains which were found. Crudely

speaking, photographs in the report (Hammond 2002, 24-28) imply that the well-preserved remains of the factory complex and its inner workings were found just below surface level.

- 8.1.16 This is relevant because of the impact which has been caused to the current site by the post-1990 development to construct the recent retail units. Each evaluation trench showed at least some degree of post-1990 impact, either from the demolition of the factory or its subsequent redevelopment. This depth of impact ranged between around 0.3m in Trench 2 to around 2m in Trenches 5 and 6. This activity has removed many surfaces to the factory, and with this the internal ground floor arrangements of the buildings within and their external yardage.
- 8.1.17 The site undoubtedly retains evidence for the former factory, however the evaluation suggests that this evidence may be limited to foundation arrangements and subterranean features if present.
- 8.1.18 Where the evaluation trenches penetrated to deeper levels, the lower alluvial horizons appear to be largely preserved except where factory structures and modern piles have extended to depth.
- 8.1.19 Within the western part of the site where a high outcrop of chalk was exposed (Trench 2), the evaluation showed that the surface of the chalk lay directly below modern make-up for the retail park. It is therefore likely that the top of the high chalk was levelled either with the construction of the factory in the 19th century or with the construction of the recent retail park, removing much of the higher evidence for the factory, and potentially any earlier pre-19th century remains too.
- 8.1.20 Evidence was observed within at least 1 trench (Trench 8) for sheet asbestos cement within demolition backfill, and the possibility exists of further contamination within made ground horizons.

8.2 Conclusions

- 8.2.1 The evaluation has demonstrated that the site has undergone significant reprofiling over the course of 19th and 20th century development. A high outcrop of chalk to the west undoubtedly provided the attraction for developing the factory in that area, whilst marginal ground to the east was being reclaimed from a marsh. Thick alluvial deposits were seen extending to depth, with gravel recorded in only 1 area in Trench 5, and here at wildly undulating depths: 1.9m below ground level in Trench 5A and 2.99m BGL in Trench 5B, only 12m apart.
- 8.2.2 As shown by the Goad Map, by 1895 the factory had become a sprawling complex comprising structures, stores, yards and railways. As demonstrated by the work to the east at the Former Bus Depot, this should have left a detailed archaeological record just below the surface of the ground. However, it seems at the current site that the demolition of the factory coupled with its redevelopment in the early 2000s has reduced this upper horizon of archaeology, such that only foundation arrangements and basement / subterranean structures may be expected to survive. The evidence from Trench 2 is that pretty much the entire upper horizon of the factory site has been removed by modern work. This impact across the site will have reduced the

significance of the remains.

- 8.2.3 The evaluation has shown that the site has very little potential for in situ remains pre-dating the 19th century, beyond chance finds. The work also showed an absence of organics within the alluvium, as expected by Quest (Young 2016, 22).
- 8.2.4 Where below-ground elements of the factory do survive, it is feasible that these could be recorded appropriately under targeted watching brief conditions.

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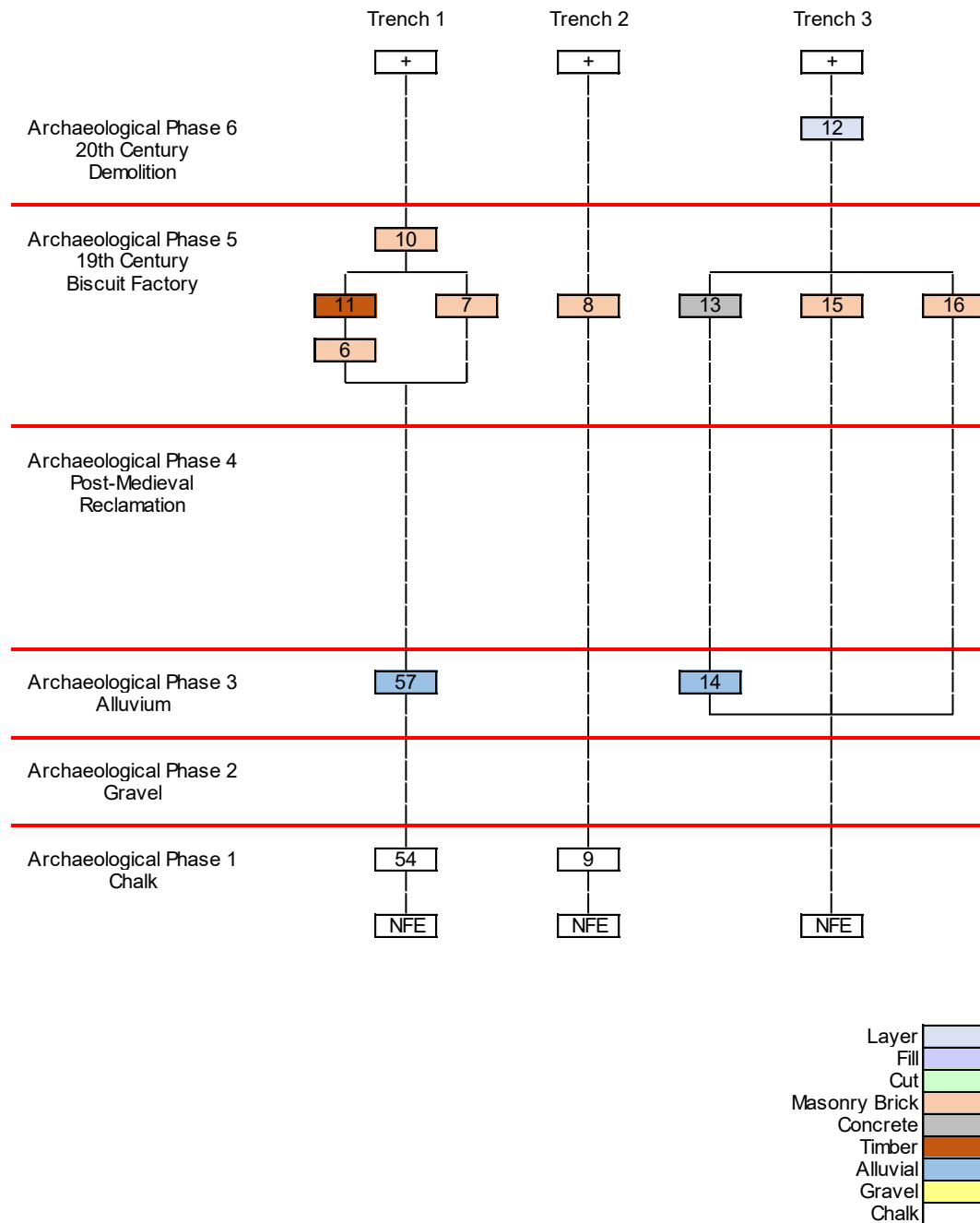
10 ACKNOWLEDGEMENTS

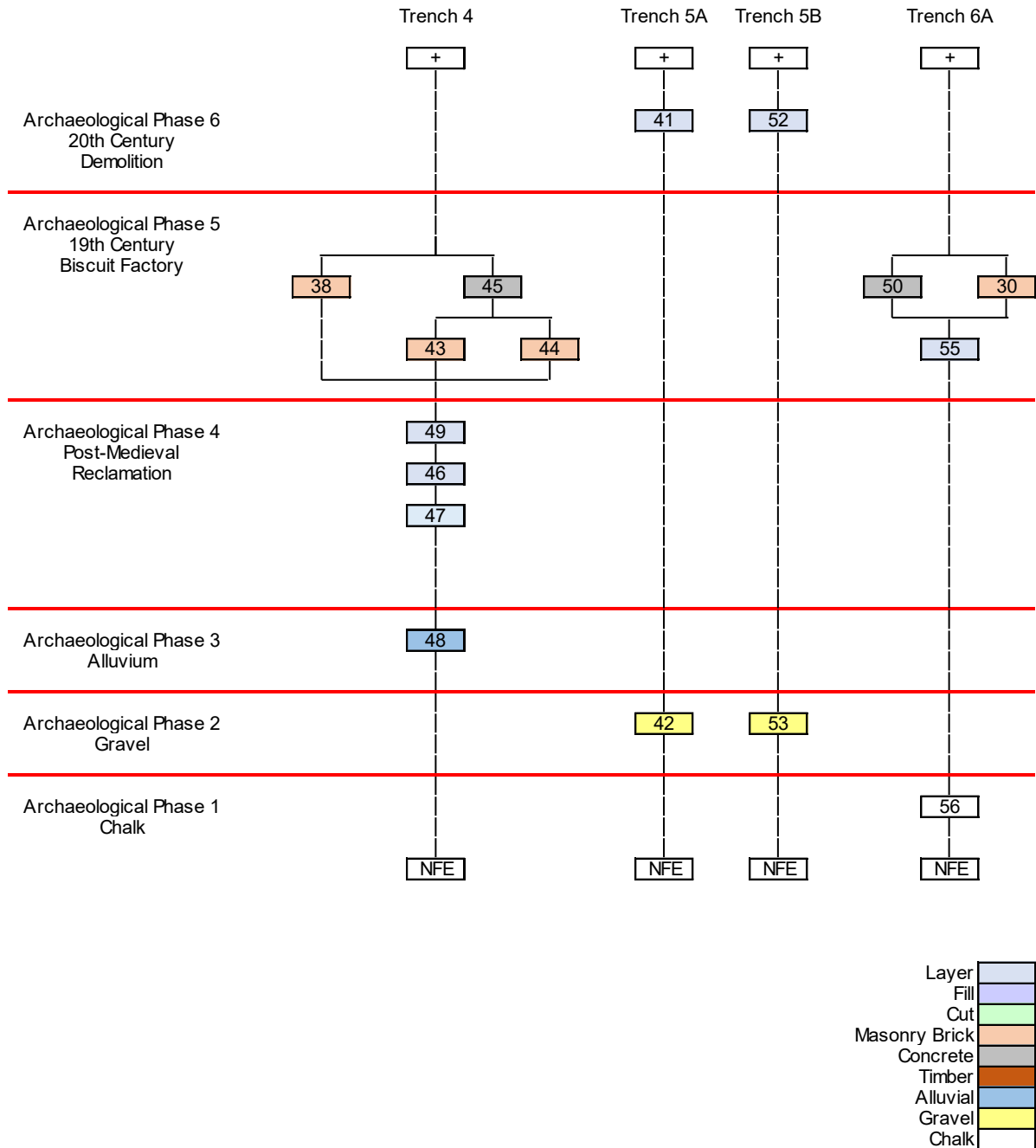
- 10.1 Pre-Construct Archaeology would like to thank Chris Clarke of CgMs Heritage for commissioning the project on behalf of Berkeley Homes Western. We also thank Alex Martin, the client's representative, for his assistance during the works.
- 10.2 Pre-Construct Archaeology would like to thank Roland Smith, Archaeological Officer for Berkshire CC, for monitoring the work.
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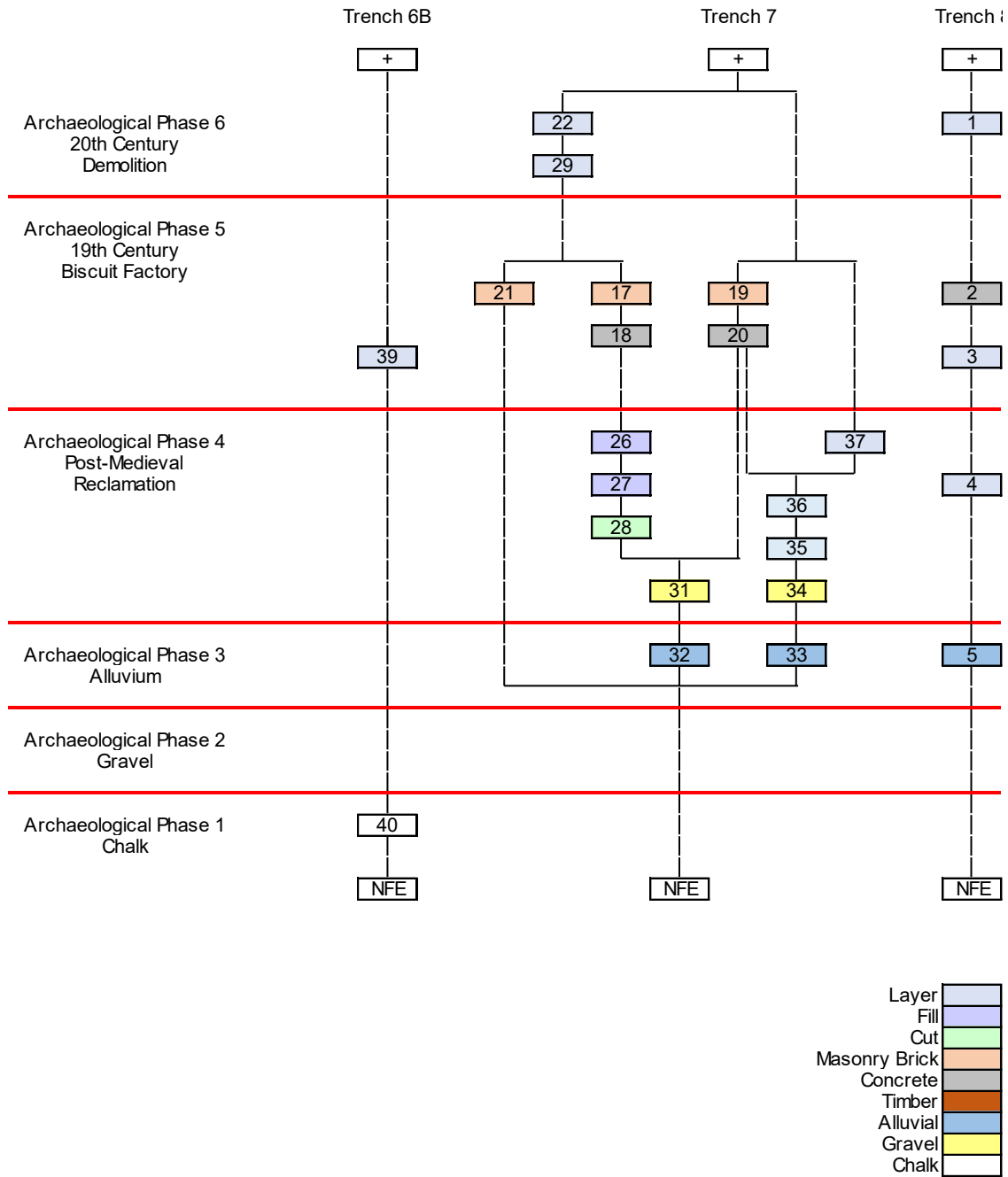
11 APPENDIX 1: CONTEXT INDEX

Context	Type	Fill of	Equal to	Trench	Interpretation	Length (m)	Width (m)	Depth (m)
1	Layer			8	Demolition Layer	4.20	10.00	0.64
2	Layer			8	Concrete Slab			0.19
3	Layer			8	Sandy gravel bedding for concrete slab [2]			0.12
4	Layer			8	Redeposited clay with CBM inclusions			0.35
5	Layer			8	Natural Alluvial layer			0.35
6	Masonry			1	Red brick biscuit factory wall	3.10	2.70	0.48
7	Masonry			1	Red brick biscuit factory wall	2.50	0.46	1.20
8	Masonry			2	Red brick biscuit factory wall	2.40	0.34	0.12
9	Natural		40, 54, 56	2	Natural Chalk			0.80
10	Masonry			1	Red brick biscuit factory wall	3.00	3.00	0.07
11	Timber			1	Timber frame within walls [6] and [7]			
12	Layer			3	Demolition layer	5.00	3.00	1.44
13	Layer			3	Concrete slab	10.00	2.20	0.40
14	Layer			3	Alluvial layer			1.25
15	Masonry			3	Red brick biscuit factory wall	1.80	0.26	
16	Masonry			3	Red brick biscuit factory wall	2.40		
17	Masonry			7	Red brick biscuit factory wall	3.00	0.50	0.80
18	Layer			7	Concrete Slab	3.00	1.10	0.70
19	Masonry			7	Red brick biscuit factory wall	3.00	0.70	0.50
20	Layer			7	Concrete slab	3.00	1.05	0.70
21	Masonry			7	Red brick biscuit factory wall	0.45		
22	Layer			7	Demolition Layer	1.50		0.45
23	Void			7				
24	Void			7				
25	Void			7				
26	Fill	28		7	Upper fill of pit	1.30		0.36
27	Fill	28		7	Lower fill of pit	0.44		0.18
28	Cut			7	Cut of pit	1.30		0.54
29	Layer			7	Leveling relating to Biscuit Factory	1.50		0.20
30	Masonry			6	Red brick biscuit factory wall	0.24	2.00	
31	Layer			7	Redeposited gravel layer	2.50		0.66
32	Layer			7	Alluvium	3.00		0.56
33	Layer			7	Gravelly alluvium	2.30		0.72
34	Layer			7	Redeposited gravel layer	0.98		0.28
35	Layer			7	Reclamation layer	2.06		0.34
36	Layer			7	Reclamation layer	1.94		0.58
37	Layer			7	Reclamation layer	2.00		0.24
38	Masonry			4	Red brick biscuit factory wall	2.40	2.10	0.58
39	Layer			6B	Demolition layer	1.85		0.10
40	Natural		9, 54, 56	6B	Chalk	2.50		0.65
41	Layer			5A	Demolition layer	1.00		0.15
42	Layer			5A	Gravel	2.00		0.60
43	Masonry			4	Red brick biscuit factory wall	4.34	0.40	1.70
44	Masonry			4	Red brick biscuit factory wall	3.46	0.11	1.37
45	Layer			4	Concrete Floor	3.00	2.40	
46	Layer			4	Reclamation layer	2.00	4.00	1.20
47	Layer			4	Reclamation layer	2.00	4.00	0.20
48	Layer			4	Alluvium	2.00	4.00	0.70
49	Layer			4	Reclamation layer	2.00	4.00	0.50
50	Layer			6A	Concrete	2.00	4.00	0.20
51	Void			6A	void	2.00	4.00	0.20
52	Layer			5B	Demolition layer			1.20
53	Layer			5B	Gravel layer			0.10
54	Natural		9, 40, 56	1	Chalk			0.17
55	Layer			6A	Leveling layer			0.11
56	Natural		9, 40, 54	6A	Chalk			0.57
57	Layer			1	Alluvial layer			1.00

12 APPENDIX 2: SITE MATRIX







13 APPENDIX 3: POTTERY ASSESSMENT

By Chris Jarrett, Pre-Construct Archaeology Limited, February 2019

13.1 Introduction

- 13.1.1 A total of ten fragments (401g) of pottery and representing 9 estimated number of vessels (ENV) were recovered by hand from the archaeological work and of this only two sherds (10g) from a single vessel were stratified. The pottery dates solely to the 19th century or possibly a little later. The assemblage is in a good condition, although in a fragmentary state, except for one intact item. The pottery therefore appears to have been deposited under secondary conditions. The Museum of London Archaeology (2014) post-Roman pottery codes were used to classify the assemblage, which is discussed as an index.

13.2 Index

13.2.1 Unstratified, Trench 7

- English brown salt-glazed stoneware (ENGS), 1700-1900, 1 sherd, 1 ENV, 125g, form: dwarf-shaped inkwell. Intact, rounded exterior rim, low rounded shoulder with an incised circular line, short cylindrical wall, concave base. External iron wash
- Post-medieval redware (PMR), 1580-1900, 1 sherd, 1 ENV, 6g, form: flower pot. Rim sherd, rounded thickening
- Refined white earthenware (REFW), 1805-1900, 1 sherd, 1 ENV, 17g, form: medium rounded bowl. Body sherd, fairly robust
- Refined white earthenware (REFW), 1805-1900, 1 sherd, 1 ENV, 16g, form: medium sized cylindrical jar. Recessed base, jam/preserve etc. jar
- Refined white earthenware with slip decoration (REFW SLIP), 1805-1900, 1 sherd, 1 ENV, 34g, form: medium rounded bowl. Simple rim, external blue lines above and below a broad blue band. Cornish-type ware
- Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780-1900, 2 sherds, 1 ENV, 155g, form: oval dish. Flat base and wall, Willow pattern
- Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780-1900, 1 sherd, 1 ENV, 11g, form: plate. Recessed base, Willow pattern
- Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780-1900, 1 sherd, 1 ENV, 15g, form: ?water closet. Thick walled sherd with an internal geometrical pattern featuring a circle with a spiral and scrolls.

13.2.2 Context [22], Trench 7, spot date: 1789–1900

- Refined whiteware with under-glaze transfer-printed decoration (TPW), 1780-1900, 2 sherds, 1 ENV, 12g, form: dinner plate. Rim sherd with a well, Willow pattern, dated from c. 1789.

13.3 Significance, potential and recommendations for further work

- 13.3.1 The pottery has little significance as it occurs as common place 19th-century types, is largely

unstratified and has little meaning. The only potential of the pottery is to date the contexts it was recovered from. There are no recommendations for further work on the assemblage, which as it has been fully catalogued, can be discarded.

13.4 Reference

Museum of London Archaeology 2014 Medieval and post-medieval pottery codes.
<http://www.mola.org.uk/resources/medieval-and-post-medieval-pottery-codes>. Accessed February 2019.

14 APPENDIX 4: CTP ASSESSMENT

By Chris Jarrett, Pre-Construct Archaeology Limited, February 2019

- 14.1 The assemblage consists of three fragments, which are all unstratified and were collected by hand from Trench 7. There are two medium thickness stems recorded, one of which has a wide bore and dates to the 17th century, while the second stem has a fine bore and dates to after c. 1730. A late 18th to 19th-century date bowl is present although it survives mostly as a stem, the base of the bowl and the heel or spur is missing.
- 14.2 The assemblage has no significance or potential. There are no recommendations for further work on the material, which can be discarded as there is an absence of any makers marks.

15 APPENDIX 5: GLASS ASSESSMENT

By Chris Jarrett, Pre-Construct Archaeology Limited, February 2019

- 15.1 A single fragment (13g) of glass was recovered by hand from the excavation and the item was unstratified and found in Trench 7. The fragment of glass consists of a wall sherd from a lead glass tumbler decorated with wide, round ended vertical facets and the vessel is dated to the mid to late 19th century.
- 15.2 As the fragment of glass is unstratified and therefore has little meaning, the item is of no significance or potential. There are no recommendations for further work on the material, which as it has been fully catalogued, can be discarded.

16 APPENDIX 6: BUILDING MATERIAL ASSESSMENT

By Kevin Hayward, Pre-Construct Archaeology Limited, February 2019

16.1 Introduction and Methods

- 16.1.1 This small building material assemblage (16 examples 49835g) from the evaluation at Kenavon Drive, Reading, Berkshire was reviewed to determine its overall character, and to provide a list of spot dates. It was hoped that the sites proximity to Reading Abbey may provide evidence of building material related to its construction.
- 16.1.2 In accordance with PCA sampling strategies, two whole bricks were taken from structures [6] [7] [10] [38] [43] most if not all relate to the mid 19th century construction and later extension of the Huntley Palmers Biscuit Factory
- 16.1.3 The application of a 1kg masons hammer and sharp chisel to each example ensured that a small fresh fabric surface was exposed. The fabric was examined at x20 magnification using a long arm stereomicroscope or hand lens (Gowland x10). As there was no Breksrhire Reference Collection for the Ceramic Building Stone each new fabric was prefixed by *RDG1* thus *RDG1...RDG2 etc*

16.2 Ceramic Building Material Fabrics and Forms

15 examples 47003kg

- 16.2.1 With the exception of one example of floor tile from a phase 3 alluvial layer from Trench 3, all the ceramic building material consists of whole brick that on the basis of brick form, fabric and mortar can be dated from the middle 19th century into the 20th century.

Medieval 1 example 93g

- 16.2.2 Floor Tile (1135-1530)
- 16.2.3 RDG2 Coarse sandy gritty fabric
- 16.2.4 A corner of a thin (25mm) brown drip glazed floor tile from alluvial layer [14] is medieval in date. Although an exact fabric type cannot be matched it was intended to be used as a floor tile almost certainly in an ecclesiastical setting. The most obvious candidate being the 1130 to 1530 Reading Abbey. This example has brown (unglazed) drip glaze on a broken surface which would indicate that it is a tile reject. It may therefore represent floor tile kiln waste.

Victorian Huntley Palmers Factory Construction and Extension 1848-1950

14 examples 46907g

- 16.2.5 Whole bricks from a series of foundation structures in Trench 1 [6] [7] [10] and Trench 4 [38] [43] can on the basis of their form, fabric and mortar type date from the mid 19th century onwards. Two distinct phases can be identified

Mid 19th century brick (1850-1900)

- 16.2.6 Hard unfrogged red brick (*fabric RDG1*) pointed in a fine lime mortar with chalk lumps from

Trench 1 wall [7] against which wall [6] abuts probably relates to the initial 1848 construction of Huntley Palmers.

Later 19th century to Early 20th century brick structure additions (1890-1925/1950)

- 16.2.7 A series of brick fabrics, which only began manufacture towards the end of the 19th century characterise the remaining walling and flooring from Trench 1 [6] [10] and Trench 4 [38] [43]. These must supersede the initial Huntley Palmers Construction and relate to later additions or outbuildings. What is more, they all have prominent indentations and frogs, and pointed (where present) in hard dark grey concrete like mortar, two further features that characterise later 19th to early 20th century builds
- 16.2.8 Fabric 3038 Fletton London Brick Company stamped Porphyries from a Trench 1 wall [6] A hard granular maroon fabric manufactured out of Oxford clays from Bedfordshire and Cambridgeshire from 1897 onwards.
- 16.2.9 Fabric 3038 Staffordshire Blues an extremely dense black clay fabric from brick floor [10] in Trench 1. These were manufactured out of the Upper Carboniferous/Early Permian Eturia Marls from Staffordshire. The clays These large, (250mm), wide (125mm) shallow (48mm) brick pavers were extremely tough and ideally suited to machine floors possibly in relation to the manufacturing processes associated with the production of biscuits. The floors would have needed to support heavy duty iron machinery.
- 16.2.10 Fabric RDG1
- 16.2.11 A series of deeply frogged bricks, made from local brickearth with either an oval outline or in the case of the LEACH stamp a rectangular outline, characterise the fabric of structures from Trench 4 [38] [43] and Trench 1 [7]. These locally made deeply frogged bricks certainly date to the latter part of the 19th and into the 20th century. The same black hard mortar in structure [43] in Trench 1 as that used in [10] in Trench 4 suggest that the two features were contemporary constructions.

16.3 Stone

1 examples 2832g

- 16.3.1 3109 oolitic limestone Fine grained Cotswold oolitic limestone Corsham or Painswick stone
- 16.3.2 Part of a worn, degraded column shaft, estimated diameter 170mm with a distinct bead was recovered from the Phase 3 Alluvial Layer [14]. The form resembles some columns used in Roman architectural ornament (Blagg 2002) whilst the rock, a fine oolitic limestone comparable to Painswick stone from Gloucester or a fine Corsham stone from Wiltshire are of types used in Roman Britain including nearby Silchester (Hayward 2009; 2015) (Middle Jurassic – Bajocian).

16.4 Distribution

Structures in bold

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
6	3038; RDG1 3101	Fletton Porphyries Brick deep frog and local red frogged brick dark grey mortar like 10 and 43	2	1875	2000	1897	2000	1897-2000	1890-1950
7	RDG1; 3101	Large well-made unfrogged red brick bonded in a fine fawn mortar a bit sandy with chalk flecks	2	1700	1950	1700	1950	1850-1900	1850-1900
10	3038; 3101	Staffordshire Blue Paving brick bonded with a dark grey hard cement like 6 and 43	2	1890	1950	1890	1950	1890-1950	1875-1950
14	3498; 3109	Glazed brown glazed floor tile sandy gritty fabric a column with a very fine oolitic limestone Painswick like soft column it has a form that could be Roman	2	50	1500	1130	1500	1130-1500	No mortar
38	RDG1	Stamped LEACH rectangular profile, oval profile frogged	2	1875	1950	1875	1950	1875-1950	No mortar
43	RDG1; 3101	Oval profile frogged local bricks no stamp dark grey concretionary mortar like 6 and 10	2	1875	1950	1975	1950	1875-1950	No mortar

16.5 Review

- 16.5.1 There is some value in this small building material assemblage from Kenavon Drive, Reading. First, the structures from Trench 1 [6] [7] [10] and Trench 4 [38] [43] be assigned on the basis of brick stamp, form, and mortar type to two phases of Victorian and Edwardian construction, both contemporary with the Huntley Palmers buildings.
- 16.5.2 Perhaps of greatest interest was the identification from an alluvial layer in Trench 3 [14] of a medieval floor tile waster possibly intended to have been used in Reading Abbey, but also an example of columnar monumental architecture which on the basis of form (bead) (Blagg 2002) and rock (Painswick stone) (Hayward 2009) be assigned a Roman date. Some columns of this form have been identified at Silchester, and Painswick stone is used in the town (Hayward 2009).
- 16.5.3 This column is unlikely to have been used in the nearby Reading Abbey, where the prominent freestone materials types consist almost entirely of either Taynton stone from Oxfordshire and to a lesser extent Caen stone from Normandy.
- 16.5.4 Further investigative work is recommended and a more detailed examination of the column

shaft.

16.6 Bibliography

Blagg, T.F.C (2002). *Roman Architectural Ornament in Britain* BAR Series 329, Archaeopress, Oxford

Hayward, K.M.J (2009) *Roman Quarrying and Stone Supply on the periphery – southern England. A geological study of first century funerary monuments and monumental architecture.* BAR Series 500, Archaeopress, Oxford.

17 APPENDIX 7: ANIMAL BONE ASSESSMENT

By Karen Deighton, Pre-Construct Archaeology Limited, March 2019

17.1 Introduction

- 17.1.1 A small quantity of animal bone was recovered by hand from a C19th wall [7] in trench 1 and alluvium [14] in trench 3 during the course of evaluation. This material was assessed using standard zooarchaeological methods (see references).

17.2 Preservation

- 17.2.1 Fragmentation was at a high level with all bone at the shaft or fragment stage. Surface condition was poor with bone surfaces abraded. No evidence canid gnawing was noted although this could be due to poor surfaces conditions.

17.3 The taxa present

- 17.3.1 Context [7] produced a fragment of cattle metacarpal shaft. The bone appeared to have been worked as it had been split laterally and both ends removed. Three chopped fragments of cattle rib were also present.
- 17.3.2 Context [14] contained a proximal cattle tibia shaft. The proximal epiphysis and the distal portion of the shaft had been removed by chopping.

17.4 Potential and recommendations.

- 17.4.1 The potential of the current assemblage is limited by its small size; therefore, no further work is recommended. However, should any future work take place, bone could be collected and analysed and may enhance the understanding of the site and add to the corpus of existing work for the area.

17.5 Bibliography and references

Schmid, E 1972 Atlas of animal bones London: Elsevier press

18 APPENDIX 8: OASIS REPORT FORM

OASIS ID: preconst1-344875

Project details

Project name	Kenavon Drive, Reading, Berkshire RG1 3JD: An Archaeological Evaluation
Short description of the project	Ten evaluation Trenches were excavated up to 4.50m below current ground level on land south of Kenavon Drive Reading. Natural chalk bedrock was identified within Trenches 1, 2, 6A and 6B. Superficial deposits of gravel were seen within Trench 5B, and alluvium was encountered within Trenches 1, 3, 4, 5A, 7 and 8. One feature was seen that predated the Huntley and Palmer Biscuit Factory within Trench 7. This was a singular pit that contained possible industrial waste. Remains of the Huntley and Palmer Biscuit Factory were seen within all Trenches with the exception of Trench 5. Ground raising activity prior to the construction of the factory was seen, but across the site the construction of the Biscuit factory appears to have had a significant impact upon the potential for earlier archaeological remains. In turn the late 20th century clearance and redevelopment has removed all but the basements of the Huntley and Palmers Biscuit Factory. All ten trenches were sealed by layers of modern made ground. No archaeological features pre-dating the post-medieval period were observed during the evaluation.
Project dates	Start: 04-02-2019 End: 20-02-2019
Previous/future work	No / Not known
Type of project	Field evaluation
Site status	None
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	PIT Post Medieval
Monument type	BASEMENT Post Medieval
Monument type	FOUNDATION Post Medieval
Significant Finds	POT Post Medieval
Significant Finds	WORKED STONE Roman
Significant Finds	CTP Post Medieval
Significant Finds	BONE Post Medieval
Methods & techniques	"Targeted Trenches"
Development type	Housing estate
Prompt	Planning condition
Position in the planning process	Not known / Not recorded

Project location

Country	England
Site location	BERKSHIRE READING READING Kenavon Drive, Reading, Berkshire
Postcode	RG1 3JD
Study area	3 Hectares

Site coordinates	SU 7227 7357 51.456001037631 -0.959725248303 51 27 21 N 000 57 35 W Point
Height OD / Depth	Min: 36.23m Max: 38.62m

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	CgMs Consultants Ltd
Project design originator	Chris Clarke
Project director/manager	Chris Mayo
Project supervisor	Stacey Amanda Harris
Type of sponsor/funding body	Housing Developer
Name of sponsor/funding body	Berkley

Project archives

Physical Archive recipient	Reading Museum
Physical Archive ID	BKDR19
Physical Contents	"Animal Bones","Ceramics","Glass","Industrial","Worked stone/lithics"
Digital Archive recipient	Reading Museum
Digital Archive ID	BKDR19
Digital Media available	"Images raster / digital photography","Survey"
Paper Archive recipient	Reading Museum
Paper Archive ID	BKDR19
Paper Media available	"Diary","Drawing","Plan","Report","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Kenavon Drive, Reading, Berkshire RG1 3JD: An Archaeological Evaluation
Author(s)/Editor(s)	Harris, S. A.
Date	2019
Issuer or publisher	Pre-Construct Archaeology
Place of issue or publication	London
Description	A4 PDF document with PCA covers
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Entered on	6 March 2019

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