

Chris Butler MCIfA
Archaeological Services Ltd

Written Scheme of Investigation
for an
Archaeological Evaluation Excavation
at
Union Place Car Park,
Union Place, Worthing,
West Sussex.

TQ 14972 02816

Planning Ref: AWDM/1618/23

Project No: CBAS 1582

By
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February 2025

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1.0 Introduction

1.1 Chris Butler Archaeological Services Ltd (CBAS Ltd) has been commissioned by Westbrooke Developments Ltd (the Client) to carry out an archaeological evaluation excavation at Union Place Car Park, Union Place, Worthing, West Sussex (hereafter the Site; Figs. 1 & 2), in connection with a planning application (Ref: AWDM/1618/23) for an application under Regulation 3: Construction of a mixed-use development between 4 and 11 storeys, comprising 216 residential apartments (including 20% Affordable Housing), of which 6 comprise Live/Work Units at Union Place, together with commercial ground floor space at High Street, associated residential car parking, cycle parking, communal residential gardens and vehicular access from Chatsworth Road. In addition, provision of a replacement public car park accessed from Union Place, and new public realm provision. (Fig. 3).

1.2 The Site (centre point: TQ 14972 02816) is located in central Worthing and comprises a sub-rectangular plot enclosed by Union Place, Chatsworth Road, High Street and Chapel Road. The Site is currently used as a car park with vacant land in the east and is laid with hardstanding except for some patches of scrub in the east. The surrounding buildings reflect development from the 19th century onwards. Most are in commercial or mixed residential/commercial use.

1.3 Worthing is located on the coastal plain, the Site lies c. 500m to the north of the coast and slopes gently down to the south lying at a height of c. 8-10m aOD. According to the British Geological Survey[1] the geology of the Site is chalk of the Lewes Nodular Chalk Formation overlain by River Terrace Deposits comprised of sand, silt and clay.

1.4 The Site lies in an area with the potential to contain archaeological remains associated with the medieval town of Worthing and its later post-medieval expansion, as well as prehistoric and Roman activity. An Archaeological Notification Area (ANA; Fig. 4) defining medieval settlement activity is present to the east of the Site, and an ANA associated with a Roman settlement site is present to the west. All groundworks associated with the development including landscaping, excavation for foundations, access, drainage and services, plus any temporary works such as compound creation and temporary access routes, hold potential to impact upon any archaeological horizons present on Site. As the Site lies within an area of archaeological potential, an archaeological condition was recommended to ensure that appropriate archaeological recording is undertaken. The condition that was recommended[2] is:

> *RECOMMENDATION: Archaeological trial-trenching and excavation*
>
> *(i) No development or preliminary groundworks of any kind shall take place until a programme of archaeological trial-trenching has been secured in accordance with a Written Scheme of Investigation which*

[1] https://geologyviewer.bgs.ac.uk/?_ga=2.68414737.1247854493.1709035244-1802798708.1709035244
[2] Brief for Trial Trenching and Excavation at Union Place Car Park, Union Place, Worthing. Place Services. 23/01/2025

has been submitted by the applicant, and approved in writing by the local planning authority.

(ii) No development or preliminary groundworks of any kind shall take place until the completion of the programme of archaeological trial-trenching identified in the Written Scheme of Investigation defined in (i) above.

(iii) The applicant will submit to the local planning authority a post excavation assessment (to be submitted within six months of the completion of the fieldwork, unless otherwise agreed in advance with the Planning Authority). This will result in the completion of post excavation analysis, preparation of a full site archive and report ready for deposition at the local museum, and submission of a publication report.

1.5 This Written Scheme of Investigation (WSI) was written in response to a brief issued by the Historic Environment Consultant to Adur and Worthing Councils[3] and outlines a programme of archaeological works to comprise an archaeological evaluation excavation which will determine the presence/absence and significance of any surviving archaeological remains within the development area and, where present, record these remains so as to determine the need for any further archaeological work or mitigation measures. Once the trial trenching has been completed the Historic Environment Consultant will define requirements for further archaeological work (if required). An addendum to the WSI outlining any additional phase of work at the Site (e.g. Strip, Map & Sample) may be required in due course.

1.6 The archaeological work will be carried out in accordance with the Chartered Institute for Archaeologists' *Code of Conduct* [4]and *Standard and Guidance for Archaeological Field Evaluation* [5], Sussex County Council's *Sussex Archaeological Standards*[6]; and the *Treasure Act*[7]. At the start of work an OASIS online record (http://ads.ahds.ac.uk/project/oasis/) will be initiated and key fields completed on Details, Location and Creators forms.

1.7 Notification of the supervisor/project manager's name for the project and the number of field staff shall be provided to the Historic Environment Consultant one week in advance of commencement of work. The project timetable is to be agreed with the Client once the WSI has been approved.

[3] Brief for Trial Trenching and Excavation at Union Place Car Park, Union Place, Worthing. Place Services. 23/01/2025
[4] Chartered Institute for Archaeologists 2019. *Code of Conduct*.
[5] Chartered Institute for Archaeologists 2014. *Standard and guidance for archaeological field evaluation*
[6] Chichester District Council, East Sussex County Council & West Sussex County Council 2019. *Sussex Archaeological Standards 2019*.
[7] UK Parliament 1996. *Treasure Act 1996*.

2.0 Archaeological and Historical Background

2.1 A Historic Environment Record search (HER Ref: 202425-092) for a 1km radius from the site centre (Fig 5) is summarised below.

2.2 River Terrace Deposits can be associated with Palaeolithic archaeology. The findspot of a Palaeolithic flint handaxe (MWS397) is reported c. 600m to the east of the Site, while a flint flake of probable Middle Palaeolithic date (MWS9089) was recovered from a palaeochannel c. 150m to the north of the Site.

2.3 An archaeological evaluation at Northbrook College, c. 70m to the north of the Site, in 1997 found evidence of prehistoric activity (MWS6525); a flint scraper was found in the overburden over the natural brickearth and a square pit/posthole containing a flint core and two pieces of F.C.F. was recorded.

2.4 A prehistoric flint (MWS7369) is recorded at Wykeham Road, c. 850m to the west of the Site. A Neolithic unpolished flint axe (MWS376) was found at Homefield Park, c. 520m to the north-east, and the findspot of Neolithic polished axes (MWS4596) is reported from Worthing Station, c. 560m to the north-west.

2.5 Poorly provenanced findspots of Bronze Age tools are reported from Worthing (MWS314, MWS389, MWS390, MWS391). At Land Adjacent to North Street / High Street, c. 120m to the north of the Site, a Late Bronze Age or Early Iron Age curvilinear ditch was identified as well as a deposit of fire-cracked flint and five worked flints (MWS4526). A Late Bronze Age linear feature and Late Iron Age to Roman linears and a gulley (MWS9089) are also known from 12 North Street, c. 160m to the north-west. Evidence for Late Iron Age or Early Roman industrial activity in the form of a partial crucible was found in the gulley.

2.6 The findspots of two Iron Age coins are reported from the shore at Worthing (MWS387 & MWS386). Hundreds of 1st and 2nd century pottery sherds, including jugs, vases, dishes and a clay oven (MWS304) were found by workmen when laying a sewer in Wykeham Road c. 800m to the west of the Site. To the south of the Site, Roman ditches and evidence of habitation (MWS395) were found between Merton Road and The Esplanade in 1963 during the laying of water mains. Finds including 1st and 2nd century pottery, pot boilers, oyster shells, metal objects were recovered.

2.7 A Roman ditch containing grain and pottery (MWS318) was found in 1967 c. 225m to the south-west of the Site. The remains of a Roman building (MWS3616) were identified in the Chapel Road area in 1900. Associated finds and features include tiles, brick, tesserae, pottery, ditches and a pond. This settlement site appears to cover a large area around Chapel Road, with much of the evidence being recovered around the museum, c. 180m to the north-west of the Site.

2.8 A Roman cremation cemetery (MWS5834) was found in 1881 during trenching at Messers Webster and Co's nurseries on the East Chesswood Estate, c. 970m to the north-east of the Site. Findspots of Roman pottery and coins are also report throughout the Study Area (MWS305, MWS306, MWS360, MWS393, MWS4984, MWS308, MWS324).

2.9 At Land adjacent to North Street / High Street continued use of the site was indicated by pits and post holes associated with Saxon pottery (MWS4528). Two sherds of Saxon pottery were found at 2A Ashdown Road (MWS7398) c. 200m to the north of the Site.

2.10 Excavations at Little High Street, c. 270m to the north of the Site, revealed two grain dyers, pits and a sequence of boundary and enclosure ditches spanning possibly the 10th to early 15th centuries (MWS6702). A 13th-15th century occupation site (MWS394) has been identified in Warwick Gardens c. 240m to the south-east of the Site. At 2A Ashdown Road, pits and ditches of medieval and early post-medieval date (MWS7398) were encountered, with pottery indicating several phases of activity from the 11th century onwards. A possible medieval ditch and a medieval pit (MWS4527) were identified at Land adjacent to North Street/High Street, and a further ditch, orientated north-south with a square cut terminal at its southern extent (MWS4985) was present at Land off North Street c. 120m to the north of the Site.

2.11 The Site lies within the core of the post-medieval village of Worthing (MWS5437), as identified through historic maps.

2.12 The Ordnance Survey drawing of c. 1806 (Fig. 6) shows the settlement of Worthing to be focused along High Street and North Street. Buildings were present in the east of the Site fronting High Street while land in the west was undeveloped at this time. Philips' map of Worthing dated 1816 (Fig. 7) shows buildings in the east of the Site, with gardens in the west. The building in the north-east corner may be Thurloe House, a substantial building which had been built by the mid-19th century. The building to its south-east may be a flint cottage which stood between Thurloe House and the High Street[8].

2.13 The Worthing tithe map of 1847 (Fig. 8) shows structures in the south-east of the Site to be ancillary buildings, perhaps barns. The buildings in the east, along High Street, show a good degree of continuality with those on the preceding map, albeit with some additions and demolitions. Development had taken place along Chapel Road to the west, and Union Place had been built to the north but the land in the west of the Site remained undeveloped.

2.14 By the time of the 1st Edition OS map of 1879 (Fig. 9) a north-south orientated barn in the central south part of the Site had been demolished and there appears to have been some minor rearrangement to the plan of the building in the south-east corner, but most of the structures shown on the tithe map remain standing. The land in the west remains

[8] Union Place, Worthing, BN11 1LG. Heritage, Townscape and Visual Assessment. On behalf of Roffey Homes Ltd October 2023.

undeveloped and is likely to have been market gardens or orchards, with trees shown planted in organised patterns. There was a lane into the site from the west off Chapel Road at this time.

2.15 Little change, only the loss of two small buildings, is shown on the 1899 2nd Edition OS map (Fig. 10). The new Chatsworth Road was developed in 1903 and the flint cottages on Cook's Row, to the south of the site, had begun to be cleared by the turn of the century.

2.16 By 1912 and the edition of the OS map (Fig. 11) a new building had been added in the north-east of the Site. The remaining buildings had undergone some minor modification. The presence of glasshouses in the open space in the west demonstrates continued use as gardens.

2.17 By 1934 (Fig. 12) major development had taken place in the west of the Site. A large building was a garage to service cars, and this was surrounded by several smaller buildings. Thurloe House is marked as Worthing Police Station. It was used for this purpose from 1922 until the late 1930s.

2.18 The 1947 OS map (Fig. 13) shows a new police station to the west of Thurloe House, in what had originally been its garden. The garage had also been extended northwards. The Site appears to be unchanged on the OS map of 1954 (Fig. 14). By 1969 (Fig. 15) the historic buildings along the High Street frontage had been demolished, leaving the modern police station and garage buildings. The garage was demolished in the 1970s, to be replaced by a car park. The police station remained standing in 1994 (Fig. 16) but has since been demolished.

3.0 Aims and Objectives

3.1 To record the location, extent, date and character of any surviving archaeological remains within the area of proposed development

3.2 Specific aims of the archaeological work will include the recovery of:

1. Medieval and post-medieval settlement remains associated with the historic core and expansion of Worthing, including any remains relating to the buildings shown on early historic mapping.

2. Evidence relating to the known Roman and prehistoric remains in proximity to the development.

3. Evidence relating to modern disturbance of the site and the impact of this upon the archaeological resource; particularly how it relates to any potential future programme of mitigation.

4. Evidence pertaining to previous land use(s).

4.0 Methodology

4.1 The client shall liaise with CBAS Ltd to ensure that the programme of archaeological work is implemented in full in accordance with the archaeological recommendations (Planning Ref: AWDM/1618/23) and this WSI. Any significant variations to the works set out in this WSI must be agreed in writing with the Historic Environment Consultant prior to commencement, or at the earliest opportunity once any constraints have been identified.

4.2 The Client shall give CBAS Ltd access to the Site to undertake the evaluation excavation and will provide information about existing services. A CAT scan will be undertaken prior to the excavation of the evaluation trenches and in the event of services being detected, the trenches will be repositioned accordingly.

4.3 Eight trenches each measuring 2m wide by 20m long and four trenches each measuring 2m wide by 10m long will be located as shown on Figs. 17-19. The trenches have been located to target the footprint of the proposed development (Fig. 17), while avoiding areas which are likely to have been significantly impacted by modern construction (Fig. 18). A 5m buffer zone has been placed around the perimeter of the Site due to the presence of services (Fig. 19). The trenches will be excavated under constant archaeological supervision, using a machine fitted with a flat-bladed bucket, in accordance with the *Sussex Archaeological Standards*. In the event of obstructions being encountered, the trenches will be repositioned to avoid them. In the event of any archaeological features being encountered at the edge of the trench which cannot be adequately interpreted, the trench may be extended in any direction in agreement with the Historic Environment Consultant.

4.4 Excavation will continue until the top of the natural or archaeological deposits are reached, whichever is uppermost. Machine stripping will only be undertaken to the top of the archaeological horizon, unless agreement is obtained from the Historic Environment Consultant to deepen the trenches by machine. The exposed sub-soil or archaeological horizon will be cleaned by hand immediately after machine stripping, if required, and any archaeological deposits or negative features planned.

4.5 If masonry walls are located as part of the evaluation, they will be planned and left *in situ* until discussions with the Historic Environment Consultant have taken place to consider if their removal is required for the successful completion of the evaluation.

4.6 If some trenches need to be excavated throughout to a depth at which the sides of the trench are considered unstable, to reach the natural or archaeological deposits, the sides of the trenches must first be either shored, battered or "stepped back" to allow safe working. Any additional costs of providing a safe working environment is the responsibility of the Client.

4.7 A proportion of archaeological features, structures and deposits exposed within the trenches shall be partially excavated by hand. The proportion of features to be sampled within any

trench may be increased at the reasonable request of the Historic Environment Consultant. In the case of features within a trench, this could be up to a maximum of 100%. Partial excavation will be defined as follows:

- All linear features will be sampled, using a minimum 1 metre wide section;
- Sampling of linear features to be at 10 metre intervals or totalling 10% of the length of the linear cut feature (whichever is the greater);
- All discrete features will be excavated, recorded and sampled to sufficiently clarify their date and character;
- Where three or fewer pits or probable pits, whether or not evidently datable or ancient (excepting evidently modern features - see 4.9), occur in any trench, all those features will be sampled;
- Priority is to be given to features with more charcoal-rich fills or anticipated dating evidence;
- Should five or fewer archaeological features of any kind, discrete or linear, be revealed within any one trench, all those features will be sampled; and
- Where two or fewer buried pottery vessels are present, buried upright or inverted, both should be lifted and removed from site.

4.8 The spoil from the excavations will be inspected by archaeologists to recover any artefacts or ecofacts of archaeological interest. A metal detector will be used at regular intervals to scan spoil derived from the excavations. A record will be kept of which deposits/features are detected and the areas in which objects were found. The make and model of the metal detector will be noted in the final report.

4.9 Archaeological deposits or features of local, regional or national significance will be reported to the Historic Environment Consultant at the earliest opportunity. All finds that fall under the definition of the *Treasure Act 1996* will be reported to the Coroner's Office and to the Sussex Finds Liaison Officer. This includes both precious metals and base metals deemed to be of prehistoric date. Suitable measures will be taken to ensure the security of finds were removal cannot take place (i.e. from within a human burial).

4.10 Environmental samples will be collected from archaeological contexts deemed to hold potential for environmental analysis i.e. those in which palaeoenvironmental data is potentially preserved and the context is datable. Bulk samples of 40 litres, or the entire context where this cannot be achieved, will be taken from archaeological features for the recovery of macrofossils, including fish and animal bone, plant macrofossils, charcoal and wood, and insects and molluscs. An environmental archaeologist may be consulted to prepare a site-specific sampling strategy in cases where potential for preservation of further palaeoenvironmental data is identified (e.g. microfossils such as pollen and diatoms). The proposed sampling strategy is in accordance with those outlined in the CBAS Environmental Archaeology Manual, which is based on those issued by Historic England and the *Sussex Archaeological Standards*. Advice will be sought from the Historic England Scientific Advisor if necessary.

4.11 In the event of human burials (both inhumed and cremated) being discovered, a licence will be required from the Ministry of Justice (in accordance with the Burial Act 1857) before the remains can be lifted. *In situ* inhumations and cremations will, however, only be excavated if they cannot be left undamaged in their place of discovery. Inhumations and cremations requiring lifting / removal from site will be excavated completely. CBAS Ltd will submit details of the procedures for the excavation and recording of burials if these are encountered. The Historic Environment Consultant and Coroner's Office will be notified immediately, as will the client.

4.12 Modern features (i.e. post-1947) will only be recorded cursorily, or not at all, unless of unusual intrinsic significance, or were it is necessary to excavate and record them to indicate their impact on features of archaeological interest. All other revealed features will be cleaned, planned, excavated and recorded in accordance with the *Sussex Archaeological Standards*. Provision has been made for the excavation and recording of any features which are suitable for scientific dating or analysis. The detail and extent of any scientific dating or analysis will be agreed with the Client and Historic Environment Consultant at a site meeting if deposits of this nature are encountered during the works. Advice will be sought from the Historic England Scientific Advisor if necessary.

4.13 Ownership of all artefacts recovered during the evaluation excavation will be assigned to CBAS Ltd by the Client until such time as they are deposited in a museum or discarded. They are to be suitably bagged, boxed and marked in accordance with the United Kingdom Institute for Conservation, Conservation Guidelines No 2. On completion of the archaeological post-excavation programme, CBAS Ltd will deposit the site archive and all retained artefacts in a suitable repository, as agreed with the Historic Environment Consultant. This deposition will be at the expense of the Client. A site code of UGW25 has been allocated.

5.0 Recording Systems & Scales and Finds Collection Policy

5.1 The recording methodology adopted will conform with industry standards and Section 3, Annexes B, C, D, E, F and G of the *Sussex Archaeological Standards*. Archaeological features will be recorded at the scale of at least 1:100 in relationship to a fixed point or temporary base lines and related to the Ordnance Survey national grid. Further plans at 1:20 and sections at 1:10 will be drawn as necessary. All plans and sections will be drawn on plastic tracing film.

5.2 All relevant trench sections where archaeological deposits and features have been identified and recorded will be drawn, with levels related to the Ordnance Datum. For trenches with only a topsoil/subsoil profile and no archaeological features, a representative section should be recorded with a record of the height of each key horizon at either end of the trench, as well as the ground surface and maximum depths of the trench, and these converted to OD heights.

5.3 All features will be photographed in digital format. The photographic record will include both general and feature specific photographs. A photographic scale (including north arrow) shall be included in the case of detailed photographs. The photographic record will be accompanied by a photographic register detailing feature number, location, and direction of shot.

5.4 The Site will be levelled to the Ordnance Datum or from a Temporary Bench Mark derived from the Ordnance Survey Bench Mark, or by GPS. The position of plans will be located on a copy of the Ordnance Survey base map of 1:2500 scale or greater.

5.5 All archaeological features and deposits will be recorded using a standard context record sheet. Soil colours will be recorded by visual inspection and not by reference to a Munsell Colour Chart.

5.6 A sample of finds post-dating 1947 will be retained to date deposits and features. Artefacts pre-dating 1947, except as detailed below, will be collected and retained, unless their size and number makes this impracticable. An excavation and on-site retention strategy will be agreed with the relevant specialist. Fire-cracked flint, ceramic building material, burnt clay and iron slag will only be discarded following specialist analysis and on the recommendation of the specialist.

5.7 All retained finds will be cleaned (where appropriate), sorted and marked with the applicable site/accession code and context number prior to their post-excavation analysis and eventual deposition to the relevant archive or museum. Suitable conservation measures (e.g. packaging with silica gel or with water) will be used to ensure the stabilisation of finds where relevant. Where a higher level of conservation is required, specialist conservator advice will be sought from the relevant specialist.

6.0 Post-excavation Analysis and Report

6.1 A brief summary report will be prepared on completion of the fieldwork. A full report will be completed within 60 working days of the completion of the evaluation, unless an alternative timetable is agreed with the Historic Environment Consultant, and will follow formatting guidelines, as recommended in the *Management of Research Projects in the Historic Environment* (Historic England 2015) and Section 4 and Appendix 1 of the *Sussex Archaeological Standards*. A CD containing the report in PDF/A format, a selection of site photographs and GIS shapefiles, when required, will be supplied to the West Sussex Historic Environment Record (HER) and the West Sussex Record Office on approval of the report by the Historic Environment Consultant.

6.2 All finds analysis is to be carried out by CBAS Ltd in-house specialists or by external specialists. Spot dating of pottery will be employed, where necessary, to inform the onsite methodology. The pottery specialist employed by the CBAS Ltd will be familiar with local pottery types and with a record of publications in the region. The proposed external finds specialists employed include:

- Prehistoric Pottery: Barbara McNee
- Roman Pottery: David Griffiths
- Medieval and Post-Medieval pottery: Luke Barber
- Ceramic building material: Luke Barber
- Geological material: Luke Barber
- Coins: David Rudling.
- Iron working material: Jeremy Hodgkinson
- Environmental: Lisa Gray

6.3 Scientific dating or analysis may be required for any features which are deemed suitable and have been agreed with the Historic Environment Consultant. Advice will be sought from the Historic England Scientific Advisor if necessary. The following scientific techniques may be used:

- Radio-carbon dating
- Archaeomagnetic dating
- Dendrochronology
- OSL dating
- Use-wear analysis

6.4 Where archaeological results do not warrant a post excavation assessment then agreement will be sought from the Historic Environment Consultant to proceed straight to grey literature/publication. In the event of complex archaeological features being encountered, a programme of post-excavation analysis will be agreed. If the results are considered sufficiently important, an article will be prepared for submission in the *Sussex Archaeological Collections*, at the expense of the Client.

7.0 Health and Safety

7.1 Adherence to standard health and safety requirements, together with any constraints imposed by the Client's health and safety practices, will be paramount. Recording of deep excavations, or which are judged to be unsafe, shall only be undertaken from the ground level, unless the excavations have been stepped or shored, and all necessary health and safety considerations are in place.

7.2 In the event of waterlogged deposits being found which have the ability to contain toxins and contaminants, all necessary health and safety measures will be put in place. The risk assessment for the Site will contain full details.

7.3 A site-specific Risk Assessment and Method Statement (RAMS) has been prepared and is attached as Appendix 1.

8.0 Monitoring and Standards

8.1 CBAS Ltd is to allow the Historic Environment Consultant, or any designated representative of Adur and Worthing Councils, to inspect and examine the site's records at any reasonable time, during or after the excavation work.

8.2 The project will be managed by Jon Baczkowski who will be responsible for ensuring that the works are implemented correctly in accordance with the following:

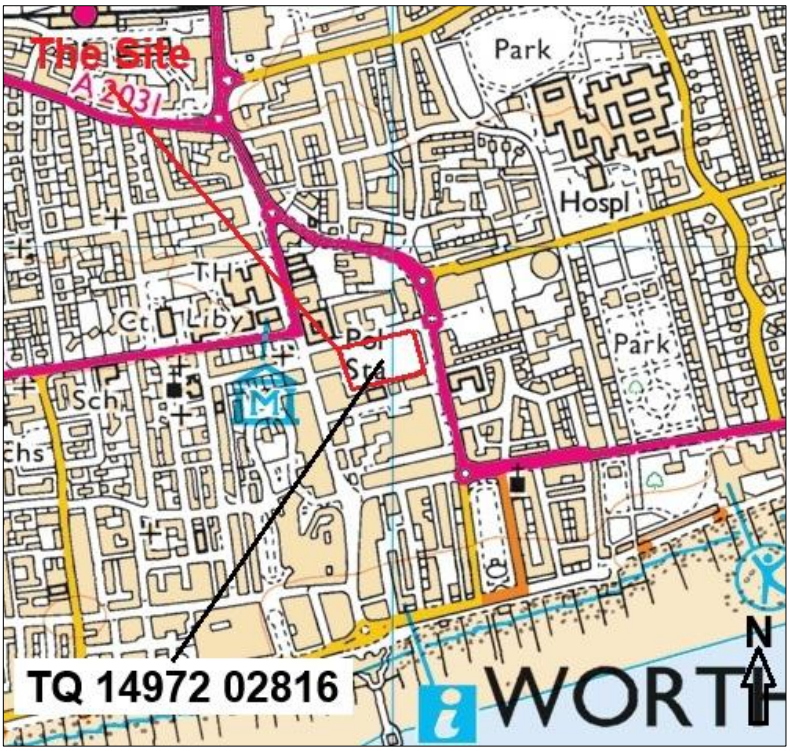
1. All statutory provisions and by-laws relating to the work in question, especially the *Health and Safety at Work Act* 1974; and

2. The Chartered Institute for Archaeologists *Code of Conduct* (2014).

9.0 Insurance

9.1 CBAS Ltd is insured for public liability to the sum of £5,000,000 for any one occurrence.

9.2 CBAS Ltd is insured for Professional Indemnity to the sum of £1,000,000 for any one occurrence.



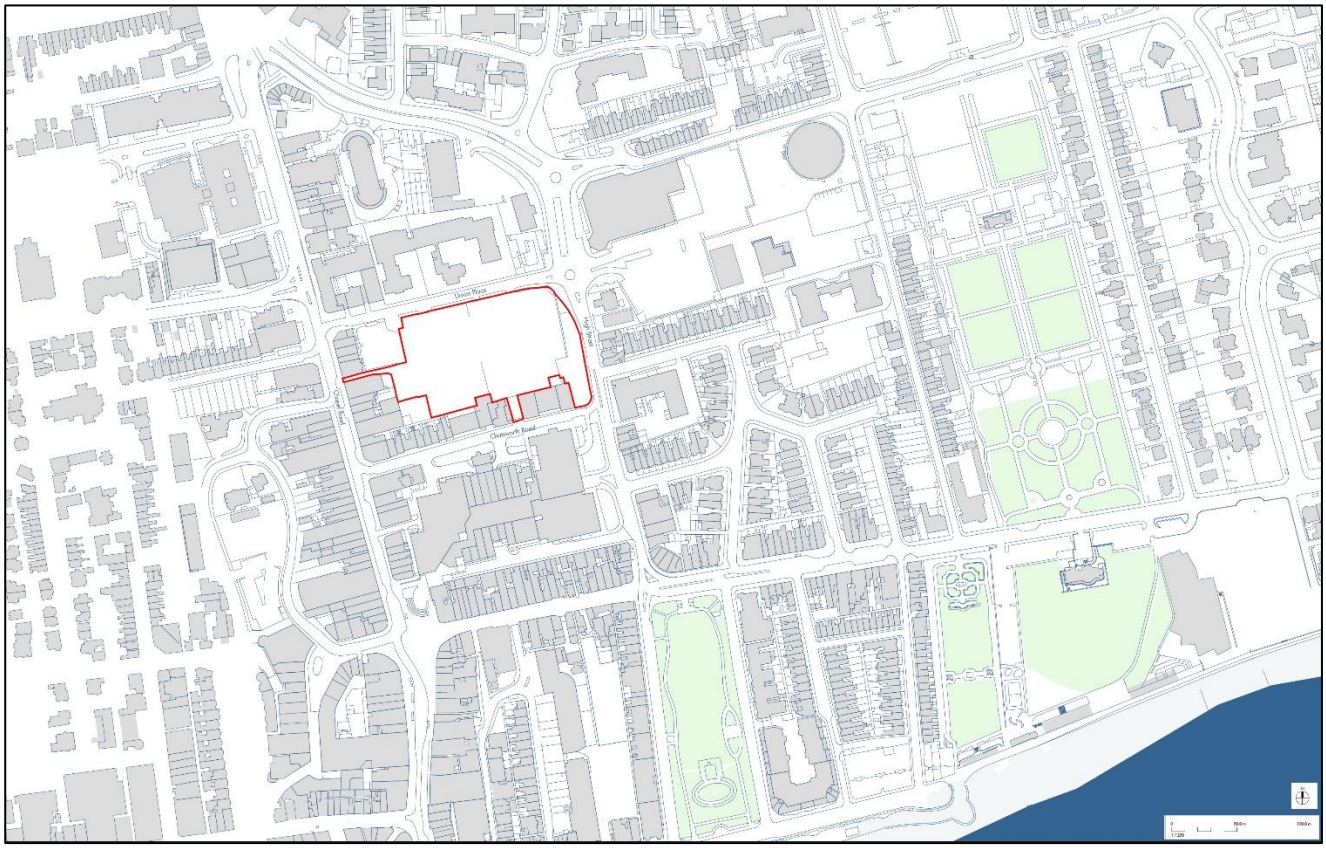


Fig. 1: Site location
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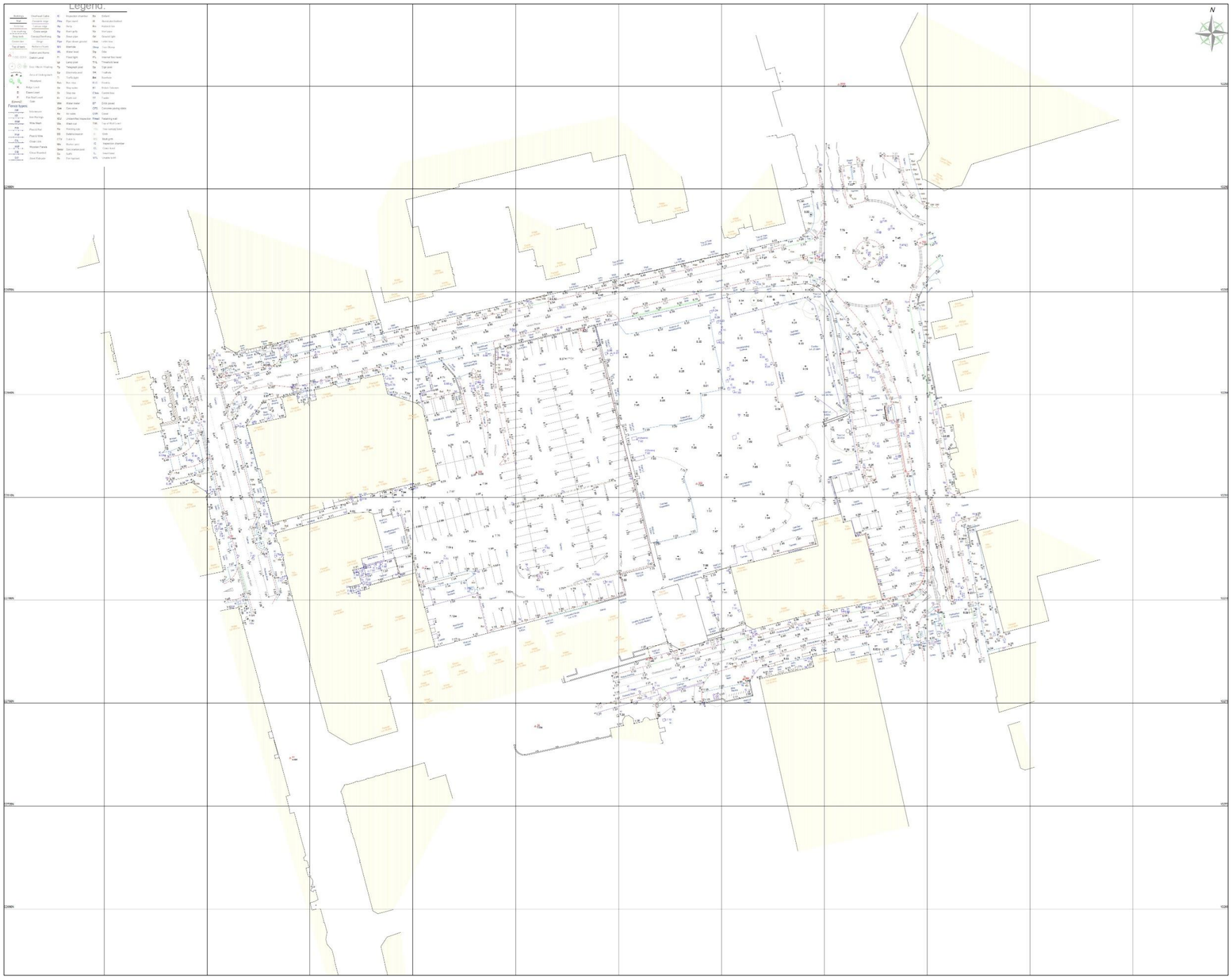

Fig. 2: Topographical Plan
(Provided by the Client)

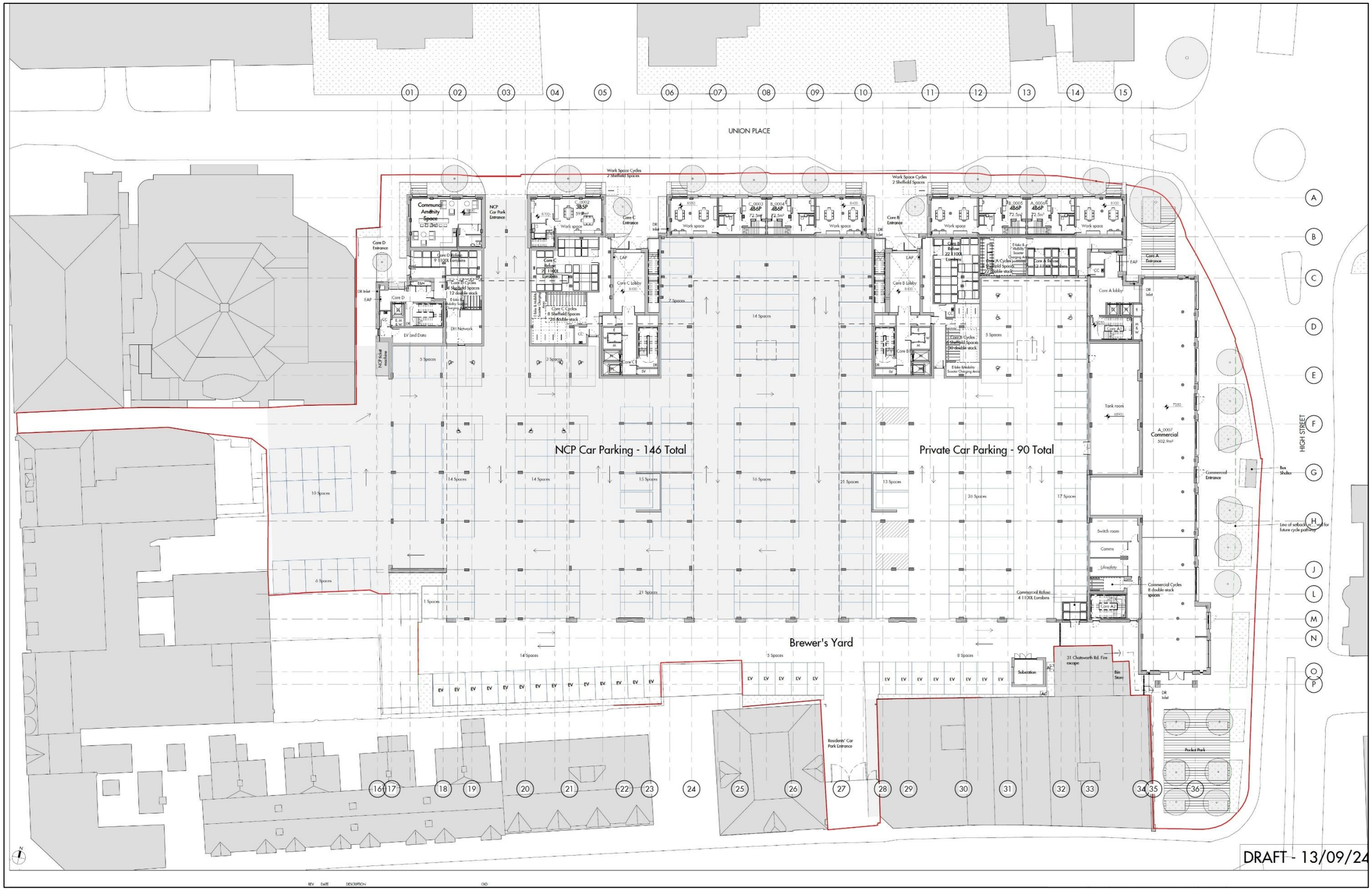

Fig. 3: Proposed Ground Floor
(Provided by the Client)

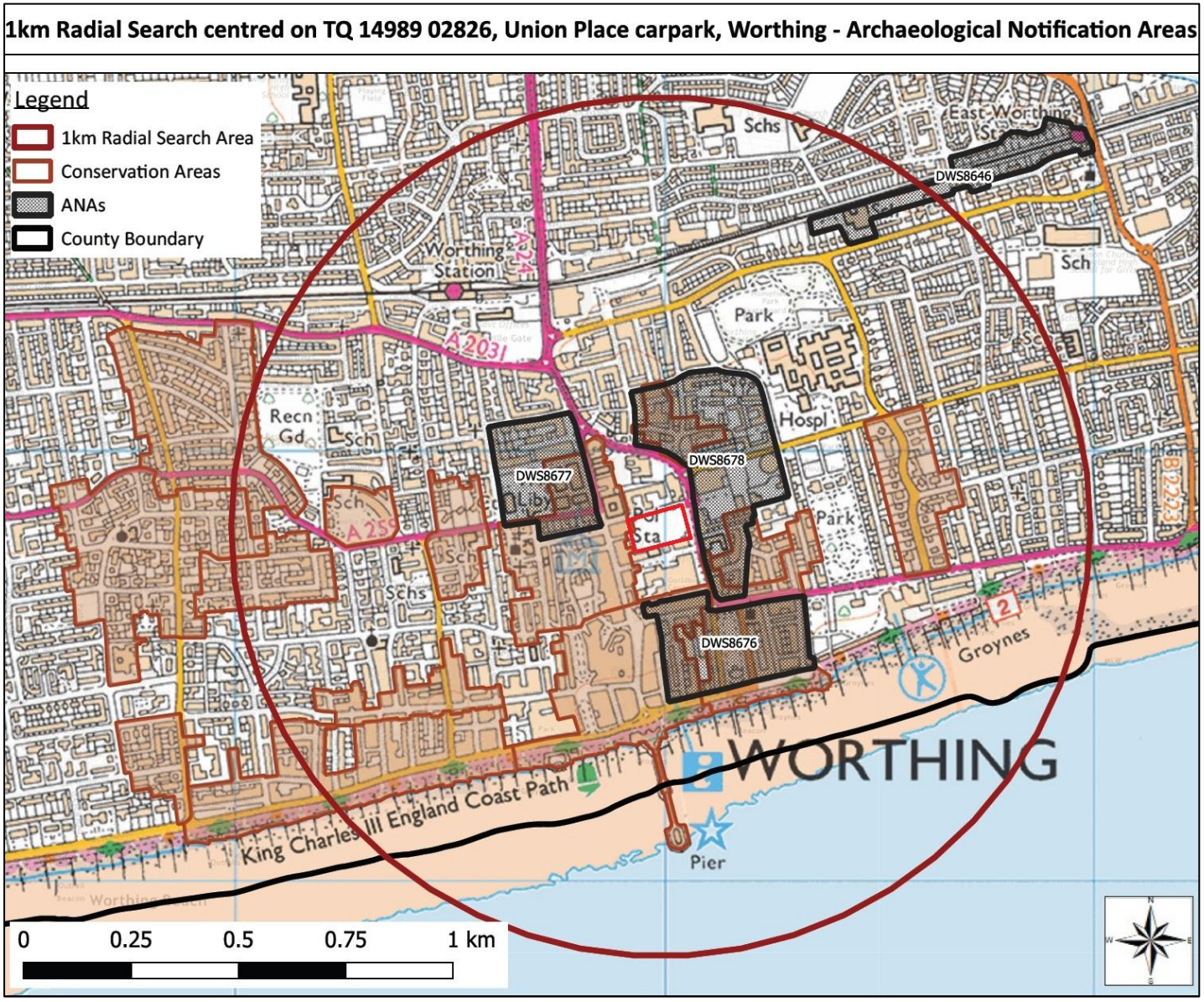

Fig. 4: Archaeological Notification Areas. Adapted from a map provided by WSCC. Ordnance Survey © Crown copyright. All rights reserved. Licence number 100037471

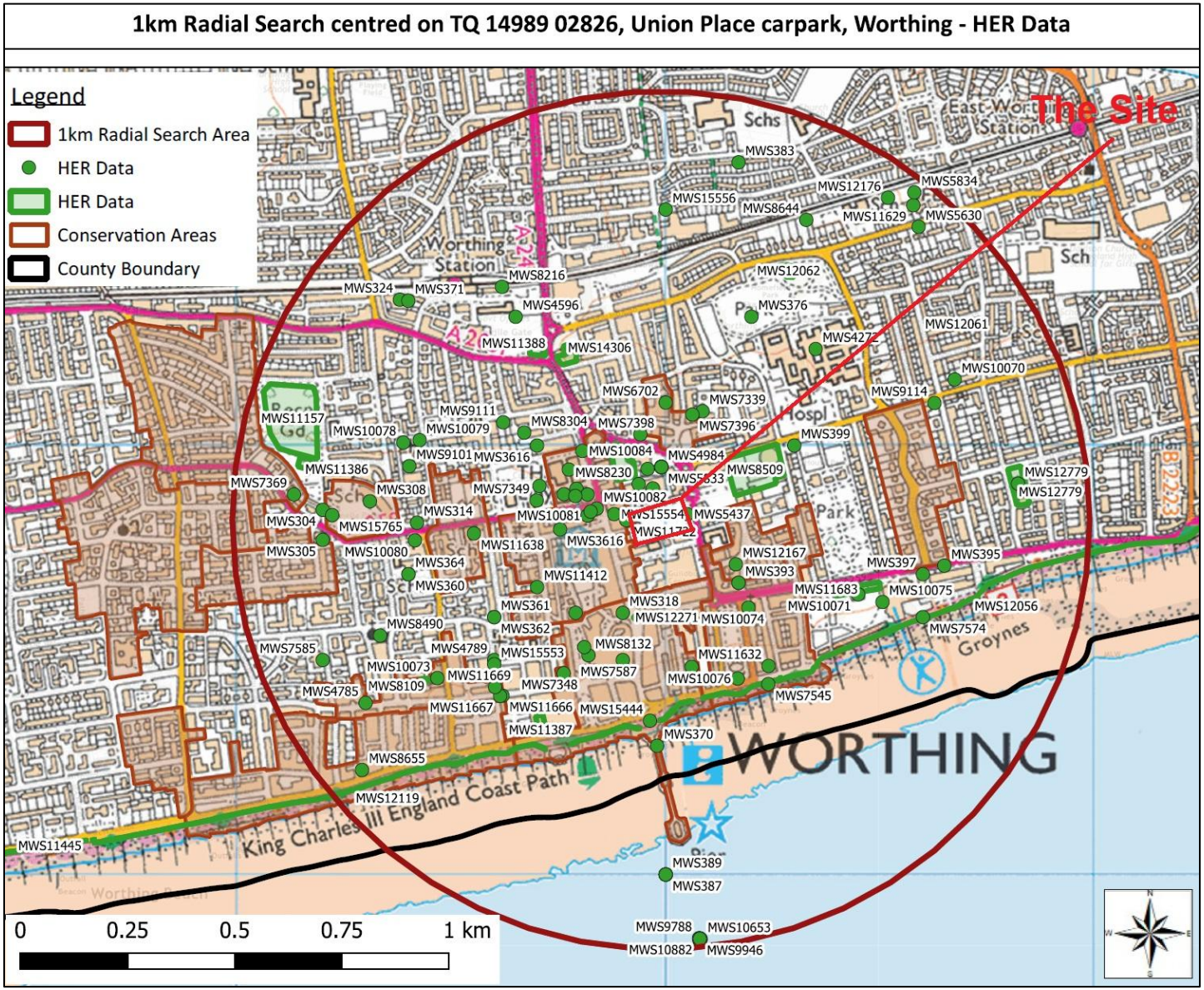

Fig. 5: Historic Environment Record. Adapted from a map provided by WSCC. Ordnance Survey © Crown copyright. All rights reserved. Licence number 100037471



Fig. 6: Ordnance Survey Drawing (c. 1806)

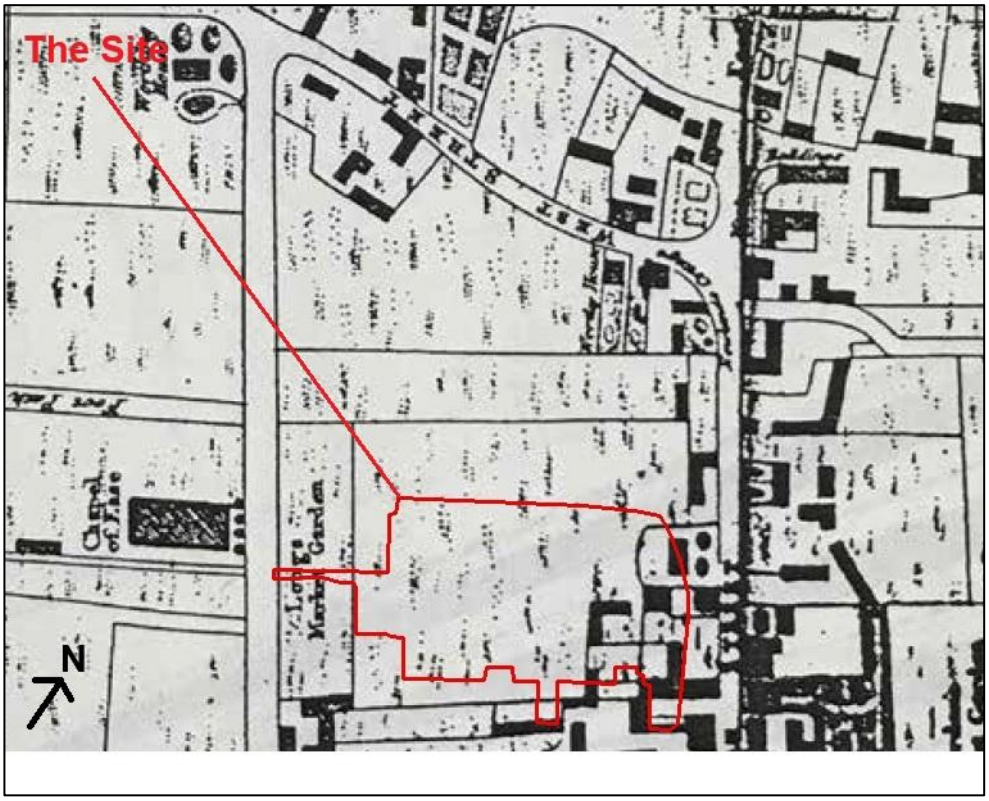

Fig. 7: Phillips map of Worthing (1816)



Fig. 8: Worthing Tithe Map (1847)

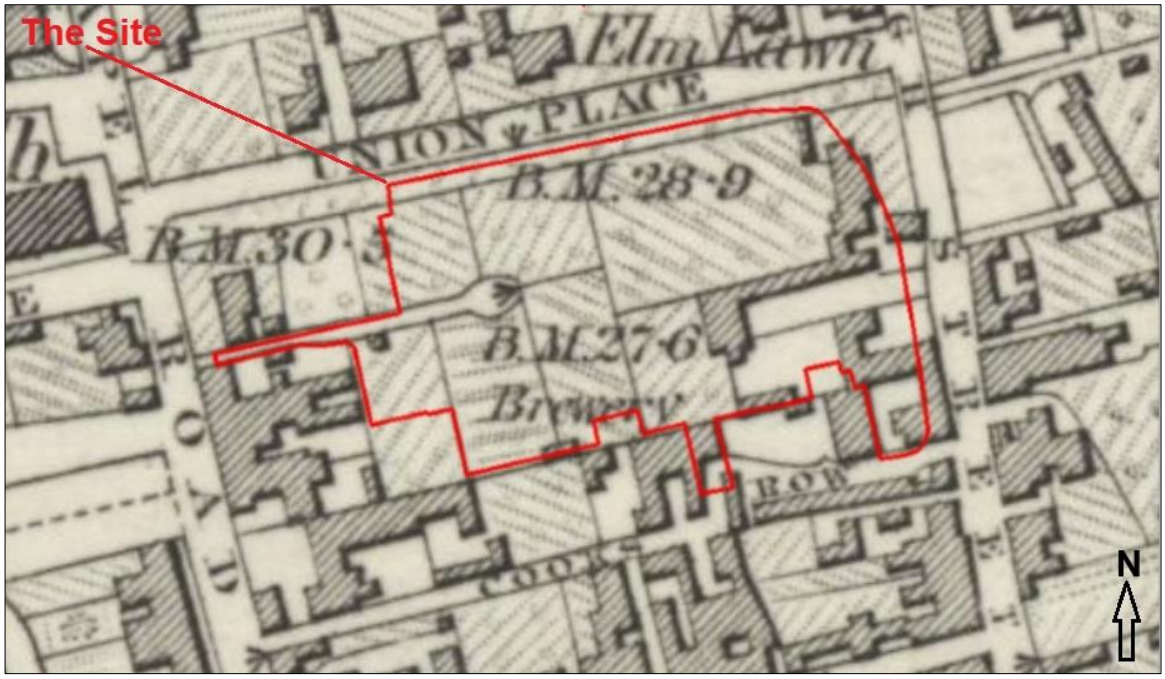

Fig. 9: 1879 OS Map

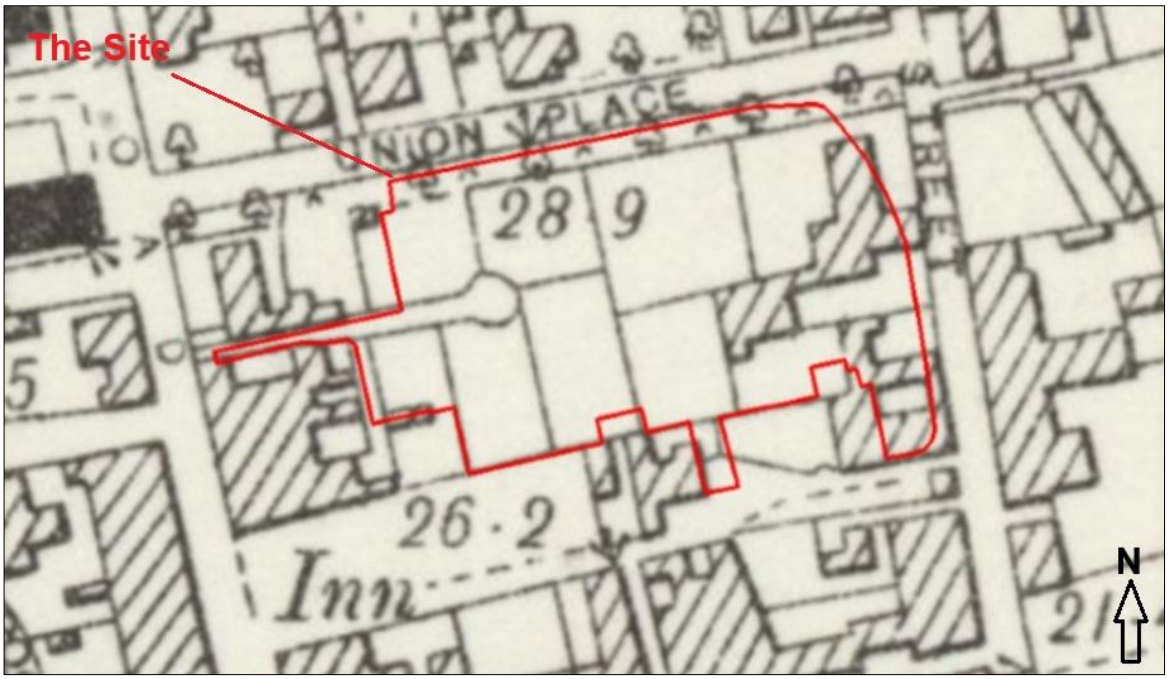

Fig. 10: 1899 OS Map

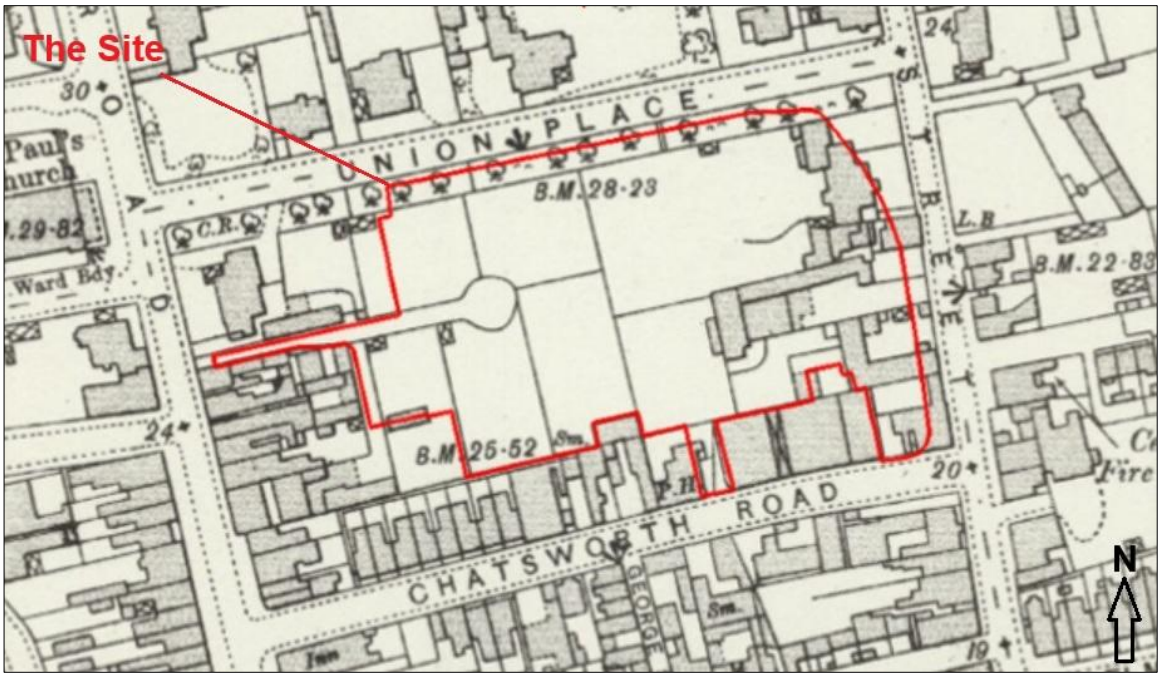

Fig. 11: 1912 OS Map

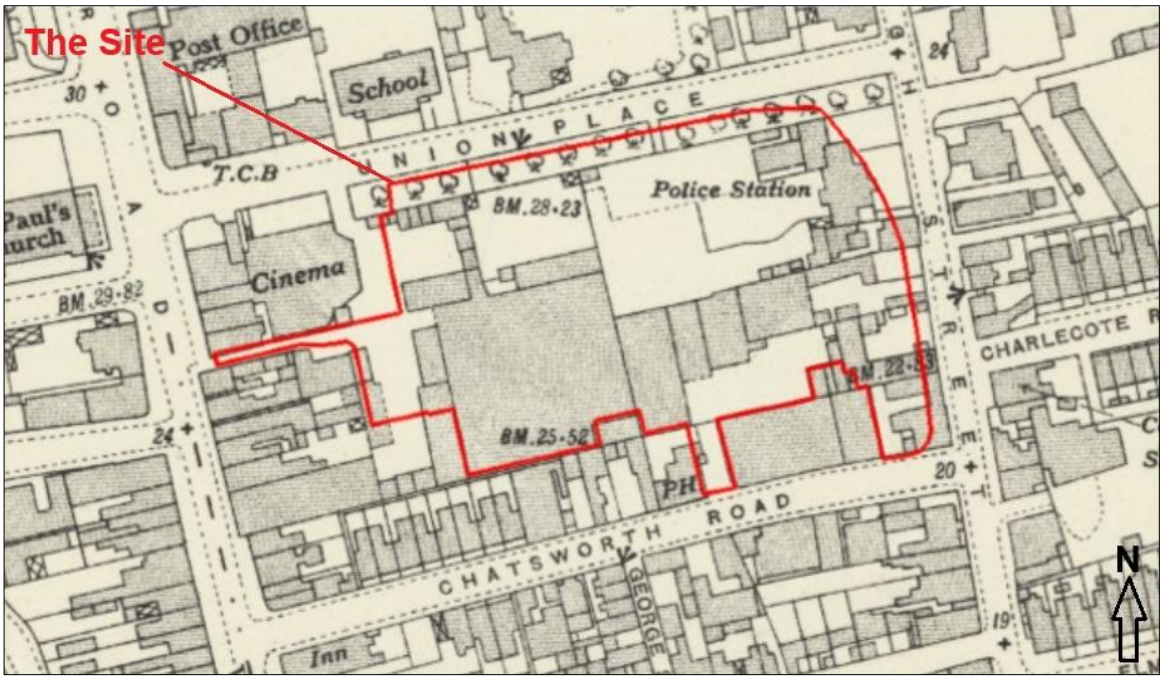

Fig. 12: 1934 OS Map



Fig. 13: 1947 OS Map

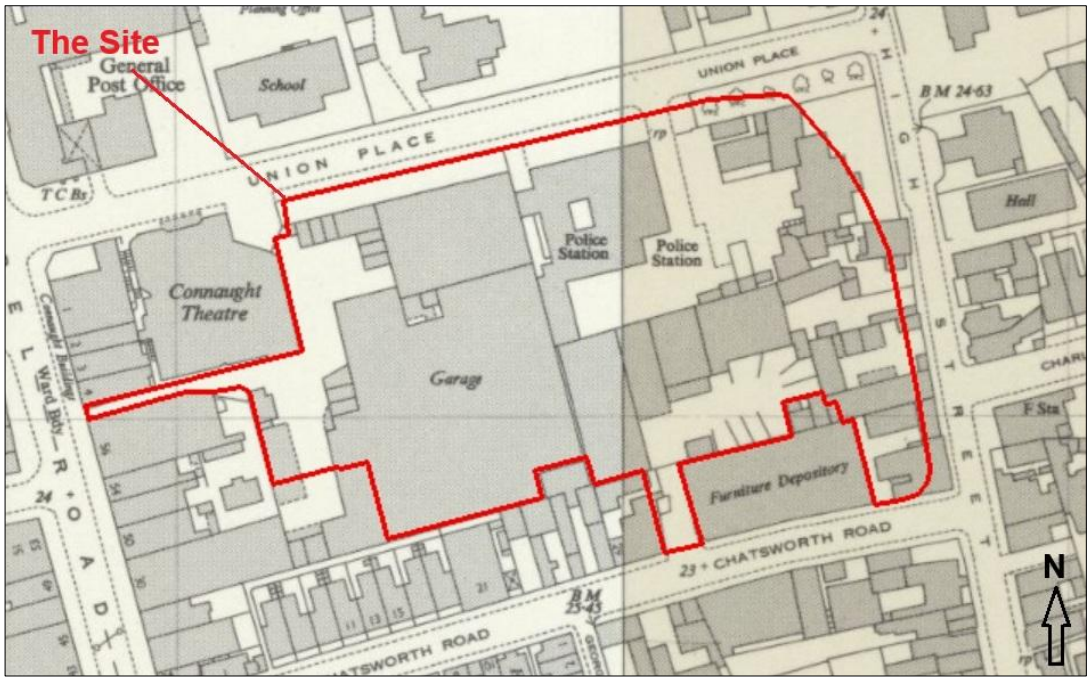

Fig. 14: 1954 OS Map

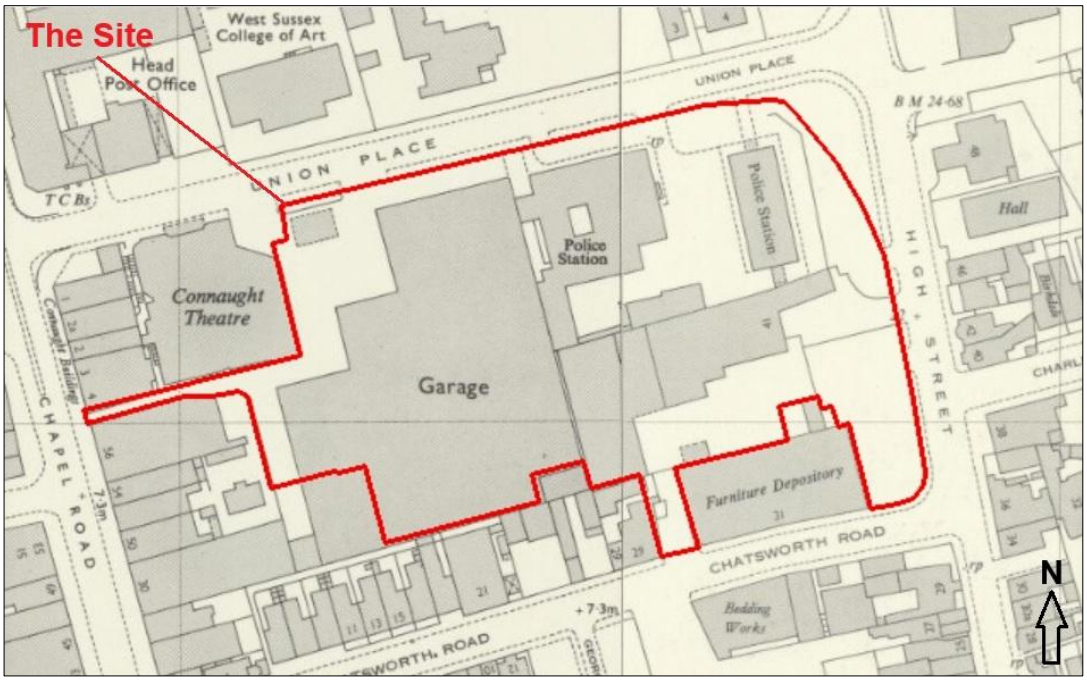

Fig. 15: 1969 OS Map



Fig. 16: 1994 OS Map



Fig. 17: Trench Plan over Proposed Site Plan



Fig. 18: Trench Plan over Map Regression

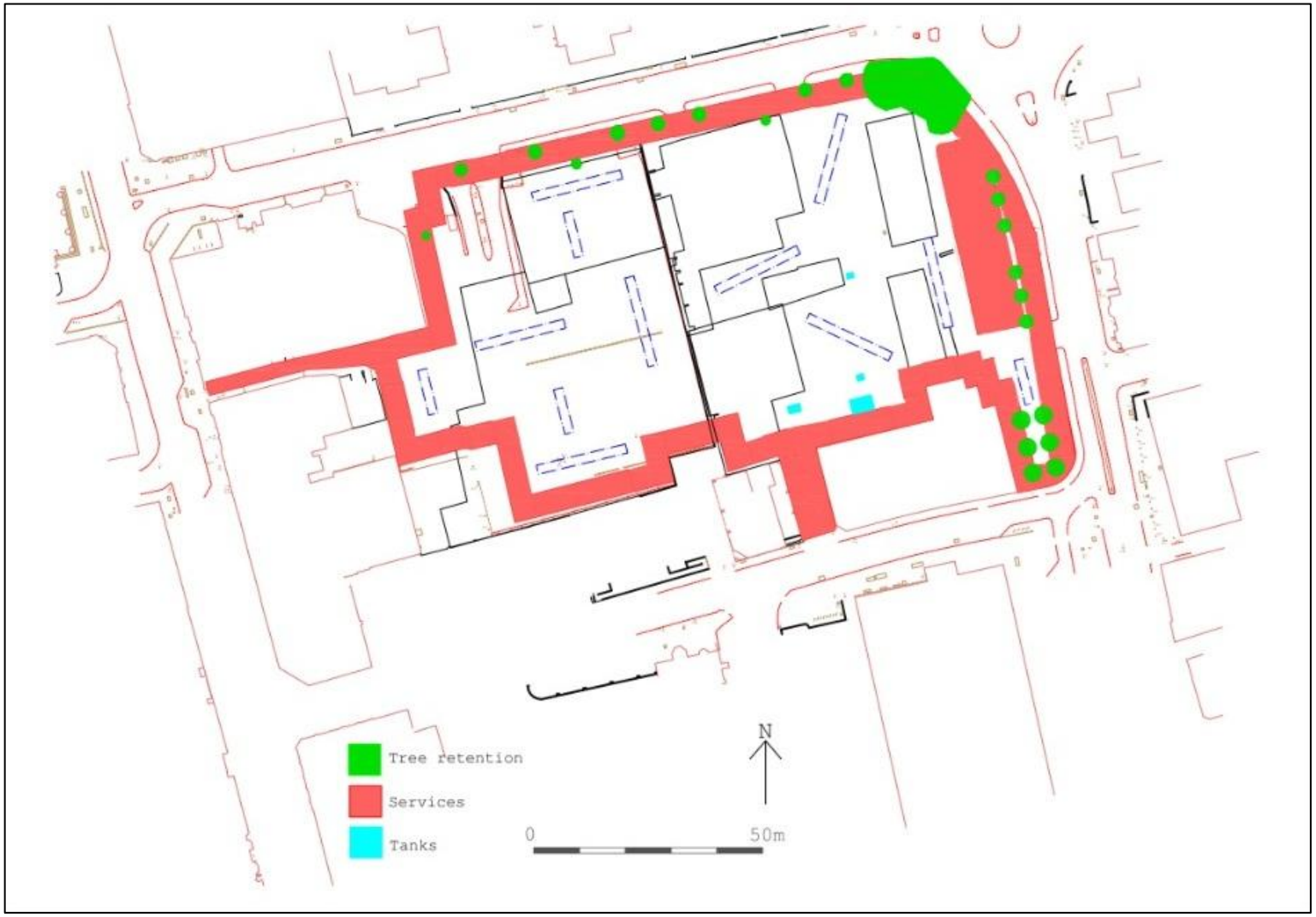

Fig. 19: Trench Plan over Plan of Site Constraints

Appendix 1



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CBAS Risk Assessment and Method Statement – 05/02/2025

Union Place Car Park, Union Place, Worthing, West Sussex.

Introduction

Chris Butler Archaeological Services (CBAS) has been contracted to undertake an archaeological evaluation excavation on Union Place Car Park, Union Place, Worthing, West Sussex.

This Risk Assessment and Method Statement (RAMS) is provided in conjunction with an archaeological Written Scheme of Investigation (WSI) for the project. A printed copy of both documents will be available on site.

All CBAS site operators, subcontractors and visitors will need to report to the Site Supervisor on arrival and are required to attend a site induction. Before commencing work all CBAS staff and subcontractors

will be shown this RAMS document and will be asked to sign the risk assessment to acknowledge they have read and understood the points covered in the RAMS and will abide by them. All staff will receive daily briefings at the start of each working shift. Any other specific toolkit briefings will require all staff in attendance to sign the briefing sheet following the briefing.

A welfare unit will be available for use by all site operators. This will contain a rest room, hand washing facility, toilet and power generator.

The project will be carried out following the CBAS Health & Safety Policy Statement at all times (see RAMS Appendix 1).

CBAS site staff are covered by Employers' Liability insurance (see RAMS Appendix 2).

Project scope and description of works

The site under investigation (centred on TQ14972 02816) and What3Words: rang.fonts.wages) is located in central Worthing and comprises a sub-rectangular plot enclosed by Union Place, Chatsworth Road, High Street and Chapel Road. The Site is currently used as a car park with vacant land in the east and is laid with hardstanding except for some patches of scrub in the east. The surrounding buildings reflect development from the 19th century onwards. Most are in commercial or mixed residential/commercial use. Worthing is located on the coastal plain, the Site lies c. 500m to the north of the coast and slopes gently down to the south lying at a height of c. 8-10m aOD. According to the British Geological Survey the geology of the Site is chalk of the Lewes Nodular Chalk Formation overlain by River Terrace Deposits comprised of sand, silt and clay.

A total of eleven evaluation trenches, measuring 20m (eight of) and 10m (three of) in length all being 2m in width will be staked out using GPS technology and initial excavation carried out by mechanical excavator using a flat bladed bucket, spoil being stored beside and away from the edge of each trench. This machine excavation will be monitored by CBAS site operators and spoil from the excavations will be inspected to recover any artefacts or ecofacts of archaeological interest. CBAS site operators will undertake manual excavation using hand tools to process and record the archaeological features and deposits, following the methodology and standards laid out in the approved accompanying WSI.

In summary this will include:

- Manual hand excavation of archaeological deposits in order to identify both their form and function and facilitate the recovery of dating evidence.
- A metal detector search of exposed surfaces and spoil heaps.
- Hand recording of features and deposits, using written records, drawings and photography.
- Collection and removal of artefacts and environmental samples to be bagged and identified appropriately.
- GPS surveying where required.

Health and Safety Issues

Health and Safety will take priority over archaeological matters. All CBAS staff undertaking fieldwork must comply with Health and Safety legislation at all times highlighting and reporting any issues as and when identified to the appropriate authority.

First Aid

A first aider will be onsite with a first aid kit available at all times. Use What3Words: grain.gladiators.modest for your location (site access gate to the north of site) when calling any emergency services. The nearest **Accident & Emergency hospital** is located 0.4 miles away to the north-east, at Worthing Hospital, Lyndhurst Road, Worthing BN11 2DH - Telephone number: **01903 205111**

Personal Protective Equipment (PPE)

CBAS site staff will use the following PPE – hard hat, high visibility clothing, safety footwear and gloves; along with eye protection and ear defenders (where appropriate).

Plant Operations

All archaeological supervision of machine excavation will be carried out by suitably experienced staff. Awareness of plant movement should be highlighted and appreciated at all times with banksman used where appropriate.

Deep Excavation

Deep excavations are not anticipated. Where specific trenches or features have deep aspects localised safety fencing and warning signage will be put in place.

Underground Services

A services plan exists for the site and each trench will be CAT scanned before excavation however, any trenches thought to contain services will be highlighted and duly avoided until clarification of what their makeup is.

Overhead Power Lines

There are no overhead power lines across the evaluation area.

Contaminated Ground

If any such contamination is identified excavation will cease until adequate safety and environmental precautions are in place and if required advice from relevant authorities will be sought.

Appendix 1



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CBAS Health & Safety Policy Statement

Chris Butler Archaeological Services Ltd ("the organisation") recognises and accepts its health and safety duties for providing a safe and healthy working environment (as far as is reasonably practicable) for all its workers (paid or volunteer) and other visitors to its premises under the Health and Safety at Work Act 1974, the Fire Precautions (Workplace) Regulations 1997, the Management of Health and Safety at Work Regulations 1999, other relevant legislation and common law duties of care.

Throughout this Statement, terms such as "staff", "workers", "employees", include both paid and volunteer workers.

It is the policy of the organisation to promote the health and safety of the staff, volunteers, and of all visitors to the organisation's premises/external sites ("the Premises") and to that intent to:-

- Take all reasonably practicable steps to safeguard the health, safety, and welfare of all personnel on the premises;
- Provide adequate working conditions with proper facilities to safeguard the health and safety of personnel and to ensure that any work which is undertaken produces no unnecessary risk to health or safety;
- Encourage persons on the premises to co-operate with the organisation in all safety matters, in the identification of hazards which may exist and in the reporting of any condition which may appear dangerous or unsatisfactory;
- Ensure the provision and maintenance of plant, equipment and systems of work that are safe;
- Maintain safe arrangements for the use, handling, storage and transport of articles and substances;
- Provide sufficient information, instruction, training and supervision to enable everyone to avoid hazards and contribute to their own safety and health;

- Provide specific information, instruction, training and supervision to personnel who have particular health and safety responsibilities (e.g., a person appointed as a Health and Safety Representative);

- Make, as reasonably practicable, safe arrangements for protection against any risk to health and safety of the general public or other persons that may arise for the organisation's activities;

- Make suitable and sufficient assessment of the risks to the health and safety of employees, and of persons not in the employment of the organisation arising out of or in connection with the organisation's activities;

- Ensure the provision of first aid resources are in place including adequate staff trained to deliver emergency first aid. Report all accidents & injuries to the management team and use the appropriate recording process;

- Make specific assessment of risks in respect of new or expectant mothers and young people under the age of eighteen;

- Provide information to other employers of any risks to which those employer's workers on the organisation's premises may be exposed.

This policy statement and/or the procedures for its implementation may be altered at any time by the organisation's management. This Health and Safety statement and the associated policies are to be reviewed in the event of an issue prompting a review or annually by the appointed Health and Safety Representative. Any amendments will be highlighted to staff accordingly.

Version 10/2024

Appendix 2

Benefact House, 2000 Pioneer Avenue, Gloucester
Business Park, Brockworth, Gloucester, GL3 4AW
Tel 0345 777 3322 Fax 01452 423557
Email information@ecclesiastical.com
www.ecclesiastical.com

Employers' Liability (Compulsory Insurance) Act 1969

CERTIFICATE OF EMPLOYERS' LIABILITY INSURANCE(a)

(Where required by regulation 5 of the Employers' Liability (Compulsory Insurance) Regulations 1998 (the Regulations), one or more copies of this certificate must be displayed at each place of business at which the policy holder employs persons covered by the policy)

Policy number	UN/001473
Name of policy holder	Chris Butler Archaeological Services Ltd
Date of commencement of insurance policy	1st April 2024
Date of expiry of insurance policy	31st March 2025

We hereby certify that subject to paragraph 2

1 the policy to which this certificate relates satisfies the requirements of the relevant law applicable in Great Britain, Northern Ireland, the Isle of Man, the Island of Jersey, the Island of Guernsey and the Island of Alderney **(b)**; and

2 (a) the minimum amount of cover provided by this policy is no less than £5 million **(c)**

Signed on behalf of Ecclesiastical Insurance Office plc (Authorised Insurer)



NOTES

a Where the employer is a company to which regulation 3 (2) of the Regulations applies, the certificate shall state in a prominent place, either that the policy covers the holding company and all its subsidiaries, or that the policy covers the holding company and all its subsidiaries except any specifically excluded by name, or that the policy covers the holding company and only the named subsidiaries.

b Specify applicable law as provided for in regulation 4 (6) of the Regulations.

c See regulation 3 (1) of the Regulations and delete whichever of paragraphs 2(a) or 2(b) does not apply.
Where 2(b) is applicable, specify the amount of cover provided by the relevant policy.

IMPORTANT NOTICE

Under the terms of the Employers' Liability (Compulsory Insurance) Regulations 2008 the requirement to display a certificate will be satisfied if it is made available in electronic form and each relevant employee to whom it relates has reasonable access to it in that form.

Ecclesiastical Insurance Office plc (EIO) Reg. No. 24869. Registered in England at Benefact House, 2000 Pioneer Avenue, Gloucester Business Park, Brockworth, Gloucester, GL3 4AW, United Kingdom. EIO is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Firm Reference Number 113848.

PD2286/03/21

Details of tasks to be carried out	Potential Hazard	A - Likeli hood	B - Severity Rating	Overall Risk Rating A x B	Control Measures	Action	Revised Risk Rating
1. Observation of excavation being undertaken by machine or by hand tools	1.1 Injury due to being struck by plant machinery	1	5	5 – Low	Only competent operators working onsite using excavation plant.	CBAS site operators monitoring excavation and to stay out of immediate area. Ensure hard hat and high visibility outer garments worn at all times, including wet-weather gear when required.	1x5 = 5 Low
	1.2 Injury from hand tools or as result of stone chips and debris	1	4	4 – Low	Ensure correct use of excavation equipment.	Re-training: ensure gloves and eye protection is worn.	1x2 = 2 Low
	1.3 Trips and slips	2	2	4 – Low	Engender an awareness of risk from tripping/slipping	Keep site tidy & keep away from drops and edges.	1x2 = 2 Low
	1.4 Injury due to other machines & vehicles on the site	1	5	5 – Low	Wear protective clothing and high visibility clothing.	Ensure hard hat and high visibility outer garments worn at all times.	1x5 = 5 Low
	1.5 Trench collapse	1	3	3 – Low	Ensure awareness of danger of working at depths.	Do not enter trench at depth greater than 1.2m unless trench is shuttered.	1x3 = 3 Low
	1.6 Sloping ground may cause machine to turn over	1	4	4 – Low	Ensure awareness of danger avoid being downslope of machine.	Ensure machine is working from level ground where possible. CBAS site operators monitoring excavation to stay out of immediate excavation area.	1x3 = 3 Low
2. Excavation & recording of archaeological	2.1 Slips/Trips/Falls Hidden unidentified hazards, concealed objects,	1	3	3 – Low	Engender an awareness of risk from hidden objects and varying conditions.	CBAS site operators to keep site tidy and keep away from drop & edges.	1x2 = 2 Low

remains	loose cables, ice, oil, water, loose gravel.						
	2.2 Lone Working Accidents, violence. Risk of injury or death.	1	2	2 – Low	Wear high visibility clothing.	Ensure high visibility outer garments worn at all times and hard hat when working close to machine activity/ excavation.	1x1 = 1 Low
	2.3 Effects of Exposure Cold, wet & windy weather	3	4	12 – Medium	Engender an awareness of effects of adverse weather conditions.	Ensure appropriate clothing is worn.	1x2 = 2 Low
	2.4 Weils Disease etc. Rats' urine within standing or running water causing potentially fatal illness.	1	5	5 - Low	Ensure all staff are aware of dangers.	Ensure appropriate protective clothing & gloves are worn & wash hands prior to eating.	1x3 = 3 Low
	2.5 Potential for Asbestos remains in the ground.	1	5	5 – Low	Ensure all staff are aware of dangers. Consider extent of hazard and whether to avoid disturbance. Toolbox talk in-house training given to CBAS staff.	HSE Essentials (EM1-9 & 11) covered and Archpoints - Asbestos in Archaeology: The First Thing You Need to Know ~ Independent Asbestos Training Providers (RB Asbestos July 2021 & Feb 2023) copy issued + in onsite folder.	1x3 = 3 Low
	2.6 Contamination	1	5	5 - Low	Ensure all staff are aware of dangers such as Vegetation (invasive non-native plants), Chemicals (diesel, petrol & oil), Noxious gases and Smoke (bonfire).	Consider the extent of contamination and can it be avoided or is further advice required?	1x3 = 3 Low
3 . Taking levels and Surveying	3.1 Injury from traffic as result of working in & adjacent to roads.	1	5	5 – Low	Wear high visibility clothing.	Ensure high visibility outer garments worn at all times.	1x3 = 3 Low
	3.2 Electrical shock from	1	5	5 – Low	Ensure all staff are aware of	Check for power cables	1x3 = 3

	staff hitting overhead power cables.				dangers.	before extending staff.	Low
4 . Search Proposed trenches using CAT scanner	4.1 Danger to staff in event of service not being detected.	2	4	8 - Moderate	Ensure correct survey procedures followed using CAT scanner. Highlight any services with spray paint.	Can service be avoided and is further advice required.	1x3 = 3 Low
5 . Noise Levels	5.1 Danger to staff in event of equipment or work process generating high noise levels.	1	8	8 - Moderate	Varying noise levels during machine excavation and hydraulic peckering.	All site operators wear ear defenders where appropriate.	1x4 = 4 Low
6 . Environmen-tal (weather conditions)	6.1. Trips and slips due to wet/ice/slippery ground	2	2	4 – Low	Engender an awareness of risk from tripping.	Keep site tidy & keep away from drops and edges.	1x2 = 2 Low
	6.2 Hypothermia	2	2	4 – Low	Be aware of warning signs of hypothermia.	Wear warm clothing, keep warm. Take advice on stopping work if too cold.	1x2 = 2 Low
	6.3 Heat Stroke	2	2	4 – Low	Be aware of warning signs of heatstroke.	Protect yourself by wearing a hat, sunscreen and a long-sleeved shirt. Drink plenty of water. Operate in the shade when possible. Take advice on stopping work if too hot.	1x2 = 2 Low
7. COVID- 19	7.1 Danger to staff on site.	1	5	5 – Low	Danger of catching COVID -19	Adhere to current government guidelines. Wear goggles, a face mask & gloves (where considered necessary). Use wipes/wash hands.	1x1 = 1 Low
8. Unexploded Ordnance (UXO)	8.1 Potential for UXO to exist onsite.	1	4	4 - Low	There is no known UXO on site however, if an unidentified item which is suspected to be	Do not touch. Alert everyone around to evacuate the vicinity and call the Police using 999	1x4 = 4 Low

					unexploded ordnance is found, leave insitu.		
9. Plant Machinery	9.1 General use and movement of excavators and dumper trucks on site.	2	4	8 - Moderate	Only competent operators are allowed to drive plant onsite. Use amber flashing light and reversing sounder. Mount and dismount plant using only manufacturer designed method, taking care at all times.	Ensure CBAS site operators wear hard hat and high visibility outer garments at all times, including wet-weather gear when required.	1x3 = 3 Low
	9.2 Communications	1	8	8 - Moderate	Establish agreed communications/signals between plant operators and CBAS staff.	Monitor that communications/signals are being used and work. Any adjustments to these must be highlighted to all site staff in a timely manner.	1x3 = 3 Low
	9.3 Faulty equipment	1	4	4 - Low	Operator to undertake a daily user inspection of plant before use and ongoing monitoring throughout use.	If a fault is identified CBAS site supervisor is informed, and plant hire company contacted to resolve.	1x4 = 4 Low
	9.4 Refuelling of plant machinery + fuel & oil leaks/spills	2	4	8 - Moderate	Operators competent to refuel plant and appropriate spill kits available for each machine onsite along with supporting PPE. Appropriate type of fire extinguisher accessible.	Ensure any waste is disposed of appropriately and any contaminated soil removed.	1x5 = 5 Low
	9.5 Excavator bucket changes	1	4	4 - Low	Operator competent to change buckets as and when required, testing before use. Buckets not in	CBAS site operators to stand clear of excavator bucket whilst being changed.	1x4 = 4 Low

					use should be stored directly on the ground, suitably away from immediate working area.		
	9.6 Security of plant machinery	1	8	8 - Moderate	When not in use the operator needs to park the excavator with bucket lowered to the ground and if unattended keys removed. At the end of working shift any security covers or devises should be fitted according to the manufacturer's guidelines.	Discuss with CBAS site supervisor to consider where plant machinery will sit onsite overnight and over any extended period of inactivity such as weekends/bank holidays.	1x5 = 5 Low

I have read and understood the points covered in this risk assessment and method statement, and will abide by them: -

DATE	COMPANY	NAME	SIGNATURE

Chris Butler Archaeological Services Ltd

Chris Butler has been an archaeologist since 1985, and formed the Mid Sussex Field Archaeological Team in 1987, since when it has carried out numerous fieldwork projects, and was runner up in the Pitt-Rivers Award at the British Archaeological Awards in 1996. Having previously worked as a Pensions Technical Manager and Administration Director in the financial services industry, Chris formed **Chris Butler Archaeological Services** at the beginning of 2002.

Chris is a Member of the Chartered Institute for Archaeologists, and a Fellow of the Society of Antiquaries of London He was a part time lecturer in Archaeology at the University of Sussex, and taught A-Level Archaeology at Bexhill 6th Form College having qualified (Cert. Ed.) as a teacher in 2006.

Chris specialises in prehistoric flintwork analysis, but has directed excavations, landscape surveys and watching briefs, including the excavation of a Beaker Bowl Barrow, a Saxon cemetery and settlement, Roman pottery kilns, and a Mesolithic hunting camp. He has recently undertaken large landscape surveys of Ashdown Forest and Broadwater Warren and is Co-Director of the Barcombe Roman Villa excavation project.

His publications include *Prehistoric Flintwork*, *East Sussex Under Attack* and *West Sussex Under Attack*, all of which are published by Tempus Publishing Ltd.

Chris Butler Archaeological Services Ltd is available for Flintwork Analysis, Project Management, Military Archaeology, Desktop Assessments, Field Evaluations, Excavation work, Watching Briefs, Building Surveys, Landscape and Woodland Surveys & Fieldwalking, Post Excavation Services and Report Writing.

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Prehistoric Flintwork Specialist

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