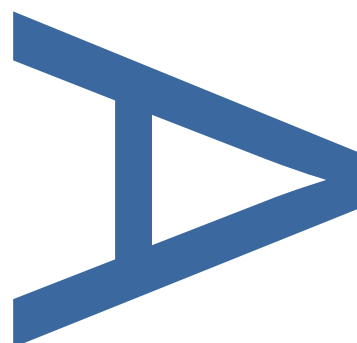
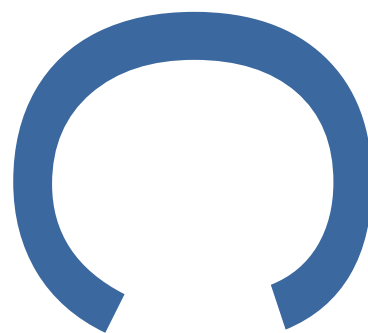


**ST COLUMBA'S CLOSE,
GRAVESEND, KENT DA12 4AJ**

**WRITTEN SCHEME OF
INVESTIGATION FOR AN
ARCHAEOLOGICAL EVALUATION**

MARCH 2024



PRE-CONSTRUCT ARCHAEOLOGY

ST COLUMBA'S CLOSE, GRAVESEND, KENT DA12 4AJ

WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL EVALUATION

SITE CODE: KSCC24

LOCAL PLANNING AUTHORITY: Gravesham Borough Council

PLANNING APPLICATION NUMBER: 20221179

CENTRAL NGR: TQ 65972 72108

COMMISSIONING CLIENT: Oakwood Building Contractors

PREPARED BY: R. Bazely
Pre-Construct Archaeology Ltd
March 2024

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March 2024

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FIGURES

Figure 1: Site location

Figure 2: Trench locations

1 INTRODUCTION

1.1 Pre-Construct Archaeology Ltd has been commissioned by Oakwood Building Contractors to undertake an Archaeological Evaluation on land at St Columba's Close, Gravesend, Kent DA12 4AJ, centred on Ordnance Survey National Grid Reference TQ 65972 72108.

1.2 Permission to develop the site was granted by Gravesham Borough Council (20221179) with a pre-commencement condition relating to archaeology:

5. No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of an archaeological field evaluation works in accordance with a Written Scheme of Investigation and timetable which has been submitted to and approved in writing by the Local Planning Authority. Following on from the evaluation, any safeguarding measures to ensure preservation in situ of important archaeological remains and/or further archaeological investigation and recording in accordance with a Written Scheme of Investigation and timetable shall be submitted to and approved in writing by the Local Planning Authority.

Reason: *To ensure that features of archaeological interest are properly examined and recorded in accordance with Policies CS19 and CS20 of the Gravesham Local Plan Core Strategy (September 2014) and saved Policy TC7 of the Gravesham Local Plan First Review (1994).*

1.3 This document forms the Written Scheme of Investigation (specification) for the archaeological work and details the methodology by which the archaeological evaluation will be undertaken. The results of this trial trenching field evaluation will be used to determine the scope of any safeguarding measures to ensure preservation in situ of important archaeological remains and/or further archaeological investigation and recording, which would be in accordance with a separate Written Scheme of Investigation and timetable which would be submitted to and approved in writing by the Local Planning Authority.

1.4 The works will be undertaken by a full-time archaeological supervisor and other archaeological staff working for PCA. The works will be monitored by Casper Johnson of KCC.

1.5 All works will be undertaken in accordance with the following documents:

- This Written Scheme of Investigation (pending approval from the Archaeology Advisor to the Local Planning Authority)
- *Manual of Specifications* of the Kent County Council
- *Management of Research Projects in the Historic Environment* (MoRPHE Historic England 2015)
- Universal guidance for archaeological monitoring and recording (Chartered Institute for Archaeologists CIfA 2023)
- Taylor, J. with Brown, G. 2009, updated 2018. *Fieldwork Induction Manual: Operations Manual 1*, Pre-Construct Archaeology Limited

1.6 Pre-Construct Archaeology Limited is a Registered Archaeological Organisation (number 23) with the Chartered Institute of Field Archaeologists and will operate within the Institute's 'Code of Practice' PCA has the following accreditations:

- ISO9001 registration
- Construction Line registration
- Achilles registration

2 BACKGROUND

2.1 Geological and Topographical Background

- 2.1.1 The bedrock geology of the site is recorded by the British Geological Survey (BGS) as the Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation. This is sedimentary bedrock formed between 93.9 and 72.1 million years ago during the Cretaceous period. It is overlain by superficial head deposits comprising clay, silt, sand and gravel. These deposits were laid down between 2.6 million years ago and the present, during the Quaternary Period (BGS online).
- 2.1.2 Geotechnical Site Investigations commissioned by Gravesham Borough Council and undertaken by RPS Consulting Services Ltd (RPS 2022) generally showed topsoil/made ground to a depth of between 0.6 and 0.9m below ground level, but with one test pit in the northwest of the site showing it reaching 2m below ground level. Head deposits were found below the made ground in the west and centre of the site, with chalk bedrock found below the made ground in the north and east of the site.
- 2.1.3 The topography of the area is generally flat, lying at approximately 31 metres OD.
- 2.1.4 The site lies in the Parrock Farm area south of Gravesend, approximately 2km south of the Thames Estuary. There are no waterways close to the site.

2.2 Archaeological and Historical Potential

- 2.2.1 No desk-based assessment report has been prepared for this site but the Kent HER has been applied for and received (12/03/2024), in addition to the use of other documentary sources. The HER showed that at Thamesview School immediately to the northeast of the site, an evaluation and watching brief found no archaeological features (EKE19664 and EKE16749). All but one entry relate to WWII and the Cold War.

Palaeolithic

- 2.2.2 The Palaeolithic period represents the earliest phases of human activity in the British Isles, up to the end of the last Ice Age (ca. 500,000 BC to ca. 10,000 BC). The HER records a Palaeolithic findspot of a flint tool approximately 800m to the southwest of the site at Singlewell Road (TQ67SE284) and a handaxe approximately 700m to the north of the site (TQ67SE279). No other evidence of human activity dating to this period is recorded in the vicinity of the site.

Mesolithic

- 2.2.3 The Mesolithic period represents human activity following the last Ice Age (ca. 10,000 BC to ca. 4,300 BC) characterised as a hunting and gathering society when warming climate and the retreat of the ice sheets would have opened up new lands to exploit. The HER records a findspot of flint flakes dated to the Mesolithic period (TQ67SE1235) ca. 800m to the southwest of the site at Kings Farm Primary School, observed during groundworks.

Later Prehistoric

- 2.2.4 The HER showed a watching brief at Taunton Vale, immediately northwest of the site had features including some burnt flint, which could be interpreted as being later prehistoric in date (EKE14851).

The Neolithic period (ca. 4,300 BC to ca. 2,300 BC) sees the beginning of a more sedentary society with the introduction of farming. No records from the HER close to the site are recorded for this period, but there is evidence for settlement from the wider area, for example a barrow excavated by Oxford Archaeology in 1995 at Tollgate approximately 2km to the southwest of the site (OA 1995).

- 2.2.5 The Bronze Age (ca. 2,300 BC to ca. 600 BC) is thought to form a time of migrations from the continent, bringing new technology in the form of metal working, along with more complex societies. No records in the HER close to the site date to this period, but in the wider area around Gravesend a large number of cropmarks indicating settlement have been observed on farmland to the south and east of the site using aerial photography, dated on morphological grounds to the Bronze and Iron Ages (RCHME 1989).
- 2.2.6 The Iron Age period dates from ca. 600 BC up to the Roman invasion in 43 AD. Northeast Kent formed the territory of the Cantiaci tribe, with Canterbury forming their capital. No records close to the site are in the HER but a number of find spots dated to the Iron Age are recorded in the wider area around the site, for example an assemblage of Late Iron Age pottery with associated human remains found at Thamesview School at Thong, approximately 1km to the northwest of the site (TQ 67 SE40). Excavations along the A2 at Singlewell by Oxford Archaeology approximately 2km to the south of the site revealed a series of Iron Age features including ditches, hearths, and storage pits. A wide range of animal remains were also identified (OA 2009).
- 2.2.7 Taken together, the evidence suggests the wider area around Gravesend to the south of the Thames Estuary formed a relatively densely populated landscape in the later prehistoric period.

Romano-British

- 2.2.8 The Romano-British period is the term given to the Romanised culture of Britain under the rule of the Roman Empire, following the Claudian invasion in AD 43. Britain as a whole went on to form part of the Roman Empire for nearly 400 years. The Iron Age oppidum of the Cantiaci tribe at Canterbury became the Roman settlement of Durovernum Cantiacorum, a major town of the Roman province, with a multitude of roads radiating from it, including 'Watling Street', which linked London to Canterbury, following the route of the modern day A2, some 2km to the south of the site. The HER contains three records for the Roman period around 1km from the site; to the west at Kings Farm where Roman cremation burials were found in 1930 (TQ67SE6), to the south in Marling Way where a coin minted in the reign of Constantine I (306 AD to 337 AD) was found (TQ67SE23) and Roman pottery fragments bearing graffiti to the northwest at Chalk. A little further to the northwest, a possible Roman villa was excavated in 1962, with nearby remains of a bath house with hypocausts (TQ67SE15).

Anglo-Saxon

- 2.2.9 The Anglo-Saxon period comprises the time from the Roman withdrawal from Britain around 410 AD up to the Norman Conquest in 1066 AD. The HER records a possible burial ground approximately 2km to the south of the site (TQ67SE7) at Clayne Wood, near the route of the A2, the former Roman road linking London and Canterbury which survived as 'Watling Street' in the Anglo-Saxon period. A number of findspots of Anglo-Saxon coins are recorded in the HER in the

Gravesend area. Gravesend itself is recorded in Domesday as consisting at the time of the Conquest of 4 households and a church, belonging to the lords Godwin, Leofric and Wulfwin (Domesday online).

Medieval

- 2.2.10 Gravesend would have continued to develop through the Medieval period, and the HER also records a possible Medieval settlement at Denton, approximately 2km to the northwest of the site. There are no records in the HER for this period close to the site, which likely formed open land.

Post Medieval

- 2.2.11 The HER records a number of post Medieval sites to the north of the site in the historic centre of Gravesend and also along the route of the A2. There are no records in the HER close to the site, which probably remained open land in the ownership of Parrock Hall to the north, originally a 17th century manor house (TQ67SE1063).
- 2.2.12 The 19th century saw the building of the North Kent Line, opening in 1849, forming part of the Dartford to Chatham Central Railway, which runs to the north of the site. Early Ordnance Survey maps record the area of the site as open land into the late 20th century.

Modern

- 2.2.13 The Modern period is generally taken to relate to the 20th century up to present times. The HER records various modern monuments in the immediate area, including an airport/fighter airfield/aircraft factory (TQ67 SE221), WWII anti-aircraft battery, pill box, 1st Aid Post, Phone Box, Air Raid Warden Post, and Defended Dust Heap (TQ67 SE1257, TQ67 SE1257, TQ67 SE1169, TQ67 SE1154, TQ67, TQ67 SE1176), a Cold War Air Raid Siren (TQ67 SE1222) and three George V to George VI Post Boxes (TQ67 SE309, TQ67 SE318, TQ67 SE303 SE1201).

3 RESEARCH DESIGN

- 3.1 This archaeological evaluation is designed to determine the presence or absence of surviving archaeological remains at the site and to characterise / interpret any remains which may be present.
- 3.2 The investigations will also seek to clarify the nature and extent of existing disturbance and intrusions and hence assess the degree of archaeological survival.
- 3.3 The archaeological investigations should determine, as far as is reasonably possible, the location extent, date, character, condition, significance and quality of any surviving archaeological remains, and attention should be given to sites and remains of all periods. In addition to the excavation of human made deposits a record of any 'naturally deposited' levels will be made, especially when these are organically preserved and laid down within archaeological periods.
- 3.4 In addition to the general aims of an evaluation as set out in the Chartered Institute for Archaeologist guidance (CIfA, 2014 (updated June 2020)), the following research questions are also posed:
- To investigate and record any features which may be attributable to the later prehistoric landscape within which the enclosed settlements present in the wider area of the site are set.
 - To investigate and record any features related to Roman settlement in the area of the site.
 - To investigate and record any features which may relate to medieval and post-medieval activity at the site.

4 PROPOSED WORKS

- 4.1 The development proposals comprise the demolition of 26 homes (including caretaker's facility) and construction of 46 new homes (including reprovision of the caretaker's facility) within two blocks of flats and two house and maisonette terraces with associated carparking and cycle storage.

5 SITE METHODOLOGY

5.1 Evaluation

- 5.1.1 Eleven trenches, measuring 10m x 2m will be excavated on site (Figure 2).
- 5.1.2 The trench locations and dimensions may be adjusted to accommodate site conditions.
- 5.1.3 A CAT scanner will be used prior to the opening of the trenches, and continuous throughout excavation at intervals of 300mm until archaeological or natural deposits are encountered, to identify and avoid live services.
- 5.1.4 Excavation will be carried out by a mechanical excavator fitted with a toothless ditching bucket. All excavations will be closely monitored under PCA's supervision. Spoil will be mounded at least 1m from the edges of the trenches.
- 5.1.5 Machine excavation will continue in spits of 100mm at a time until either significant archaeological strata are found or natural ground exposed, whichever is encountered first. Each trench will be fully investigated and recorded, and features will, where appropriate, be tested to ascertain their function, date and significance.
- 5.1.6 The trenches are expected to expose natural ground at ca. 0.8m below ground level and therefore no deep trenches are anticipated. Any Made Ground deeper than that will be likely to represent the backfilling of large excavations.
- 5.1.7 All arisings from the trench will be carefully inspected to ensure that any artefacts are recovered.
- 5.1.8 The trenches and spoil heaps will be scanned with a metal-detector at regular intervals to enable finds recovery.
- 5.1.9 No exhumation of human remains will be undertaken during the evaluation. If archaeological features are found which are suspected to be graves, Oakwood Building Contractors and KCC will be informed and PCA will obtain a burial licence. Once received, a select example of burial(s) will be tested to confirm the presence of human remains. If present, they will be recorded and locally protected / backfilled.
- 5.1.10 Once the trenches have been signed off by KCC they will be backfilled.

5.2 Investigation and Recording Techniques

- 5.2.1 A selection of archaeological features (stratigraphical layers, cuts, fills, structures) will be excavated by hand tools and recorded in plan at 1:20 and in section at 1:10 using standard single context recording methods. Photographs will also be taken as appropriate.
- 5.2.2 Archaeological features, structures and deposits will be identified, recorded and, where appropriate, excavated by the attendant archaeological team using suitable hand tools. Similarly, select relationships between features or deposits will be investigated and recorded where appropriate in order to properly understand the date and nature of the archaeological remains on the site and to recover sufficient finds assemblages to assess the chronological development and socio-economic character of the site over time.

- 5.2.3 Archaeological excavation may require work by 'pick and shovel'; however, such techniques will be used only for the removal of homogeneous and 'low grade' layers where it can reasonably be argued that more detailed attention would not produce information of value. They will not be employed on complex stratigraphy, and the deposits to be removed must have been properly recorded first.
- 5.2.4 The strategy for sampling archaeological and environmental deposits and structures will be developed by PCA as necessary. If appropriate, Oakwood Building Contractors, KCC and the Historic England Regional Archaeological Science Advisor will be consulted.
- 5.2.5 Any intact activity areas such as knapping floors, if detectable, will not be excavated or disturbed at this stage. If such remains are encountered, Oakwood Building Contractors and KCC will be informed immediately, and arrangements may need to be made for the trench to be recorded and protected for later mitigation.
- 5.2.6 Where deposits with potential for environmental and/or scientific analysis are encountered, bulk samples (40 litre minimum) will be taken from the feature (if safe to do so) for subsequent analysis. If suitable deposits are observed, provision should be made for specific environmental sampling and radiometric dating of the sediments, to be agreed with KCC and PCA's Palaeolithic specialist.
- 5.2.7 The sedimentary sequence in each trench will be logged, drawn and photographed. At least one representative section of the trench will be drawn to a scale of 1:10. If necessary, more than one face will be drawn.
- 5.2.8 If articulated human remains are identified, the client and KCC will be notified immediately. Any remains will be left in situ, with the agreement of the Kent County Council Archaeological Officer. A selection of such remains will be tested but not excavated, and if necessary, the location of the trenches adjusted to avoid burials.
- 5.2.9 All gold and other precious metals will be removed to a safe place and reported to the local coroner according to the procedures relating to the Treasure Act 1996. Where removal cannot be affected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.

5.3 Monitoring

- 5.3.1 Oakwood Building Contractors will notify the KCC of the commencement of fieldwork one week in advance.
- 5.3.2 PCA will provide regular updates to Oakwood Building Contractors for onward transmission to KCC and the client.

5.4 Access and Safety

- 5.4.1 Site security will be the responsibility of the overall client.
- 5.4.2 Reasonable access to the site will be granted to Kent County Council and representatives of the client, advisory bodies or local planning authority who wish to be satisfied, through site inspections, that the archaeological works are being conducted to proper professional standards and in

accordance with the agreements made. Full access is also provided for the client and its agents.

- 5.4.3 All relevant health and safety legislation, CDM, COSHH regulations and codes of practice will be respected. This requirement constitutes one of the non-archaeological requirements on the excavation design. PCAs H&S Policy Statement (2023) and Site Rules (2023) will be followed at all times. A site-specific Risk Assessment will be prepared; this will be reviewed and updated daily by the site supervisor.
- 5.4.4 There is a duty of care for the overall client to provide all information reasonably obtainable on contamination and the location of live services before site works commence. Should services be encountered during excavation, it will be the assumption of PCA that they are live and will be avoided at all costs.
- 5.4.5 Welfare and toilet facilities for the archaeological team will be provided by PCA.
- 5.4.6 Minimum PPE for work on the site will comprise safety helmet, safety boots and high-visibility vest. Gloves shall be kept at the ready. Contamination-appropriate PPE (such as disposable suits, impermeable gloves, wellington safety boots and dust masks (P3 or half-filter)) will be available if suspected contaminants are encountered.
- 5.4.7 If asbestos material (suspected or confirmed) is encountered during the excavations its location will be marked, photographed and left in situ. The client will be informed as soon as possible. PCA will not remove any asbestos from site.
- 5.4.8 If during the archaeological investigation items are observed or found which are considered to be potential UXO objects, all work in the vicinity of the excavation will cease and the client will be informed immediately. They will notify relevant bodies and arrange for appropriate attendance from specialists and/or emergency services.
- 5.4.9 If groundwater is present within the excavated trenches, and requires removal to allow work to proceed safely, it will be pumped from the trenches by means of a puddle pump (or similar) and generator. The water will be discharged in a location agreed with the client, away from archaeological trenches.
- 5.4.10 All PCA's staff are CSCS card holders. However it should be noted that CSCS are no longer issuing cards to archaeologists.

6 RECORDING SYSTEMS

6.1 Site Code

- 6.1.1 A unique 'site code' (KSCC24) will serve to identify the site archive, including written, drawn, and electronic records, as well as artefacts.

6.2 Site Records

- 6.2.1 The recording systems adopted during the investigations will be fully compatible with those most widely used elsewhere in Kent, which are those presented in PCA's *Operations Manual 1* (Taylor 2009). No alternative recording system will be adopted without the prior agreement of KCC.

- 6.2.2 The site archive will be so organised as to be compatible with the other archaeological archives produced in the Local Authority area. Individual descriptions of all archaeological strata and features excavated and exposed will be entered onto prepared *pro-forma* recording sheets which include the same fields of entry as are found on the recording sheets of the Museum of London. Sample recording sheets, sample registers, finds recording sheets, accession catalogues, and the photography record cards will follow the Museum of London equivalents. This requirement for archival compatibility extends to the use of computerised databases.
- 6.2.3 A 'site location plan' indicating the site north and based on the current Ordnance Survey 1:1250 map (reproduced with the permission of the Controller of HMSO) will be prepared. This will be supplemented by a trench plan at 1:200 (or 1:100), which will show the location of the areas investigated in relation to the investigation area and National Grid Reference. All sections should be located on plan with OS co-ordinates. The location of the OS bench marks used and the site TBM will also be indicated.
- 6.2.4 A record of the full extent in plan of all archaeological deposits as revealed in the investigation will be made; these plans will be on polyester based drawing film, will be related to the site grid and at a scale of 1:10 or 1:20. 'Single context planning' will be used on site, and the information will be digitised for eventual CAD application.
- 6.2.5 At least one long section will be drawn or a representative part including a profile of the top of the natural deposits (extrapolated from cut features etc., if the trench has not been fully excavated). Other sections, including the half-sections of individual layers or features may be drawn as appropriate to 1:10 or 1:20.
- 6.2.6 The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections.

6.3 Stratigraphic Matrix

- 6.3.1 A 'Harris Matrix' stratification diagram will be used to record stratigraphic relationships. This record will be compiled and fully checked during the course of the excavations. Spot dating should be incorporated where applicable during the course of the excavation.

6.4 Site Survey

- 6.4.1 PCA will use measured survey data to locate the trenches for archaeological purposes.

6.5 Photographic Record

- 6.5.1 An adequate photographic record of the investigations will be prepared. This will consist of high quality, colour digital photographs taken in jpeg and RAW formats by an appropriately trained individual, illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted. The digital images will be preserved on a dedicated and backed up server. The RAW files will be converted to high quality tiff images for eventual preservation by the local receiving archaeological archive.

6.6 Digital Data

6.6.1 A Digital Data Management Plan for the project is provided at APPENDIX 1.

7 TREATMENT OF FINDS AND SAMPLES

7.1 General

- 7.1.1 All processing will take place at PCA's Brockley premises, or, if appropriate, those of our environmental consultants.
- 7.1.2 PCA hereby confirms to GLAAS that arrangements are in hand to cover all necessary processing, conservation, and specialist analysis and storage of finds and samples.

7.2 Environmental

- 7.2.1 Different sampling strategies may be employed according to the perceived importance of the deposit or feature under investigation. Close attention will be given to sampling for date, structure and environment. Sample size should be take into account the frequency with which material is likely to occur. Bulk sieving should be employed both for recovery of environmental evidence to ensure that complete samples of artefactual evidence are collected for significant deposits.
- 7.2.2 The strategy for sampling archaeological and environmental deposits and structures (which can include soils, timbers, pollen, diatoms, animal bone and human burials) will be developed in consultation with KCC and, if necessary, the English Heritage Regional Archaeological Science Advisor. Subsequent on-site work and analysis of the processed samples and remains will be undertaken by our own consultants and specialist sub-contractors.
- 7.2.3 If wooden structures are identified PCA's specialist timber advisor, Damian Goodburn, will be contacted to provide advice.
- 7.2.4 A high priority will be given to sampling river and other anaerobic deposits, such as peat, where organic materials may be preserved. Organic samples will be subject to appropriate specialist analysis.

7.3 Artefactual

- 7.3.1 All PCA's finds retrieval and discard policies will be adopted and all identified finds and artefacts will be retained according to the stated selection retention and retrieval policy appropriate to the material type and date. No finds will be discarded without the prior approval of KCC.
- 7.3.2 All finds will be treated in a proper manner and to standards agreed in advance with the recipient museum. They will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in the United Kingdom Institute for Conservation's '*Conservation Guidelines No.2*' and the Museum of London's '*Standards for the Preparation of Finds to be Permanently Retained by the Museum of London*'. All metal objects will be x-rayed and then selected for conservation (except in those cases where KCC agrees that this will not be necessary).
- 7.3.3 Ceramic (pottery, clay tobacco, building material fabric and brick form) reference collections, housed at the Museum of London and at PCA will be referred to for descriptive and analytical purposes in order to ensure that terminology is consistent.

8 ARCHIVES AND REPORTS

8.1 Site Archive Destination

- 8.1.1 After all reporting and when it is known that no further work is required for this phase of work, the resultant site archive will be deposited with the appropriate local museum/archive depository.
- 8.1.2 The deposition of the archive will be achieved by means of a "Deed of Transfer" which is to be signed by the landowner. This will be organised by PCA as part of its commission to the client.
- 8.1.3 The landowner or, if PCA is commissioned by a third-party on their behalf, the commissioning client, agrees, by approval of this document, to donate all finds and archives to the aforesaid repository.
- 8.1.4 PCA hereby requests that the landowner, or their agent on their behalf completes the Landowner form at Appendix 1.

8.2 General

- 8.2.1 The integrity of the site archive will be maintained. The finds and records will be available for public consultation. PCA uses the appropriate guidance set out in the Museum and Galleries Commission's *Standards in the Museum Care of Archaeological Collections* (1992) and *Towards an Accessible Archaeological Archive. The Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland Scotland and Wales* (SMA 1995). Any specific deposition from the local receiving archive will be followed.
- 8.2.2 If the finds are not to be donated, arrangements will be made for a comprehensive record of all relevant materials (including detailed drawings, photographs and descriptions of individual finds), which can instead constitute the archaeological archive.
- 8.2.3 The minimum acceptable standard for the site archive is defined in the *Management of Archaeological Projects* 5.4 and Appendix 3. It will include all materials recovered, (or the comprehensive records of such materials as referred to above) and all written, drawn, and photographic records, including a copy of all reports relating to the investigations undertaken. It will be quantified, ordered, indexed, and internally consistent before transfer to the receiving archive. It will also contain a site matrix, a site summary and brief written observations on the artefactual and environmental data.
- 8.2.4 United Kingdom Institute for Conservation guidelines for the preparation of excavation archives for long term storage (1990) will be followed.
- 8.2.5 A short summary of the results of the work, even if negative, will be bound into the client report for submission to the client and the Kent HER along with the OASIS report form as soon as possible after the completion of archaeological works.
- 8.2.6 Minimum requirements for public dissemination is for OASIS report forms to be submitted to the OASIS Project as soon as possible of within 6 months of completion of fieldwork, and the provision of a short paragraph summary of the results for publication in the *London Archaeologist: Excavation Round-Up*. Such publications will meet the minimum requirements set out in Appendix 7, *Management of Archaeological Projects* (1991), and derive from a 'phase 2 review' as defined in

the same document. There is a need to format reports so that the details of the proposed development impact can be separated from the information and enable all archaeological information to be made available to the GLHER within 6 months of the completion of fieldwork.

- 8.2.7 Where the mentioned 'phase 2' review indicates the need for further assessment and analysis the recommendations set out in the *Management of Archaeological Projects* 1991 will be followed.

8.3 Report

- 8.3.1 Notwithstanding details included above all fieldwork and results will be fully recorded and a Report prepared. Copies of the report will be forwarded to the client for approval, and then to GLAAS for comment.

- 8.3.2 The report will include the following items:

- Non-technical summary;
- Introduction;
- Planning Background;
- Topography of the site;
- Research objectives;
- Methodology;
- The results of the fieldwork and their significance;
- An assessment of the results against original expectations and a review of the effectiveness of the evaluation strategy;
- Statement of potential of the archaeology;
- Conclusions;
- Recommendations, if necessary, for an appropriate level of analysis and publication
- Bibliography;
- Acknowledgements;
- OASIS form.

- 8.3.3 The project resource agreed between PCA and the client allows for the production of a M&R report, to include CAD illustrations and artefact assessment as necessary. It is intended that PCA will provide our client a draft copy of the M&R report for comment within three weeks of the completion of the fieldwork.

9 SIZE AND STRUCTURE OF EXCAVATION TEAM

- 9.1 The investigations will be supervised by a full-time member of PCA's staff who has considerable experience of working in archaeology and on the sites containing prehistoric flintwork, and who has an understanding of the issues associated with this site.
- 9.2 The supervisor will be assisted as necessary by up to 2 full-time archaeologists in the employment of PCA in addition to other support staff, such as archaeological photographers, surveyors, finds specialists and logistics.
- 9.3 A standard working day is 08.00 - 16.30. A morning and afternoon tea break and 45-minute lunch

break are included within this period.

10 PROGRAMMING AND TEAM

- 10.1 It is intended that the work can progress once this WSI is approved by the KCC and once the client is able to grant access to the site. The precise date will be advised to the KCC in advance by PCA.
- 10.2 The on-site fieldwork programme is estimated at 8 days. A report will be produced within approximately 3 weeks of the completion of the fieldwork.

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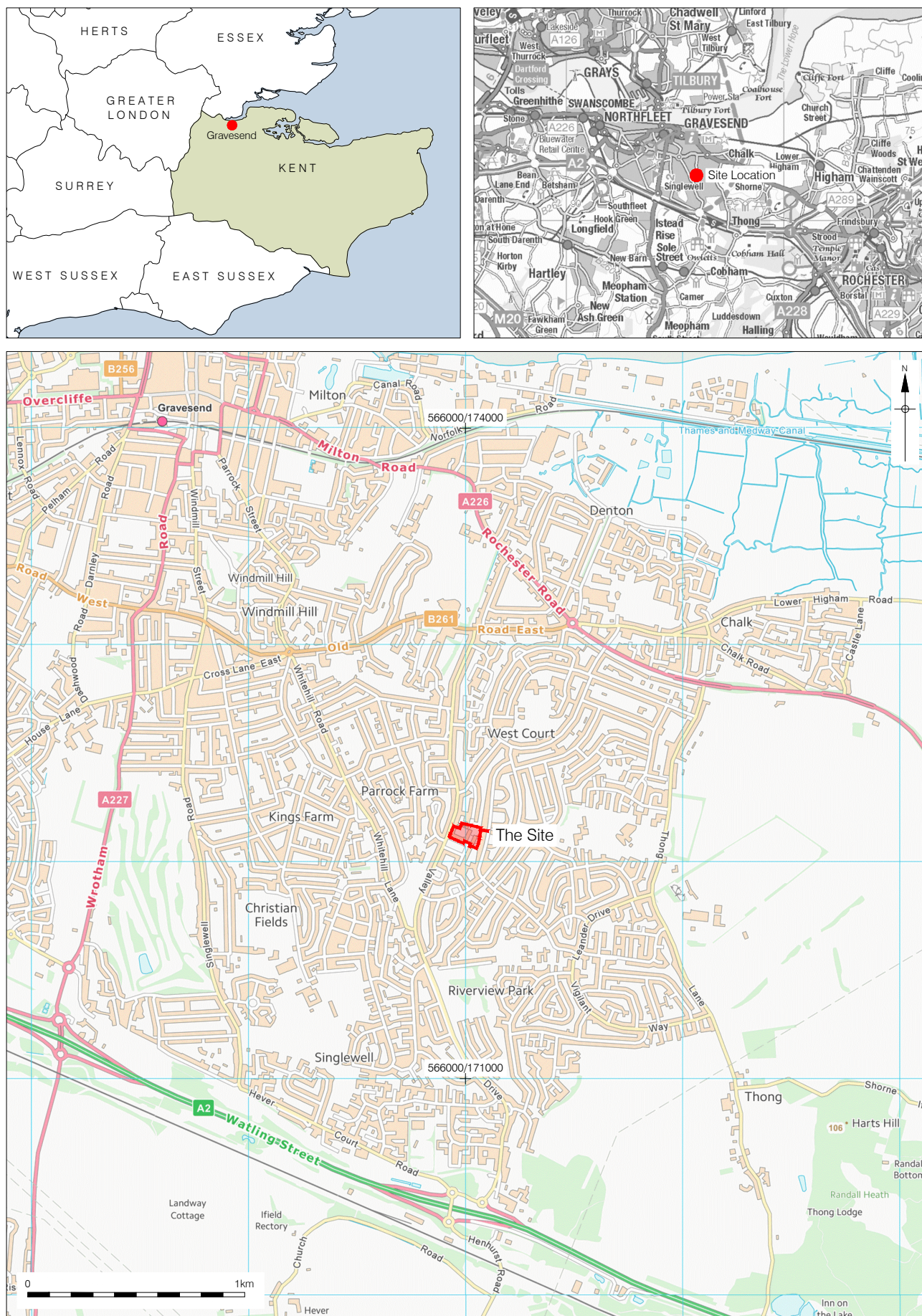
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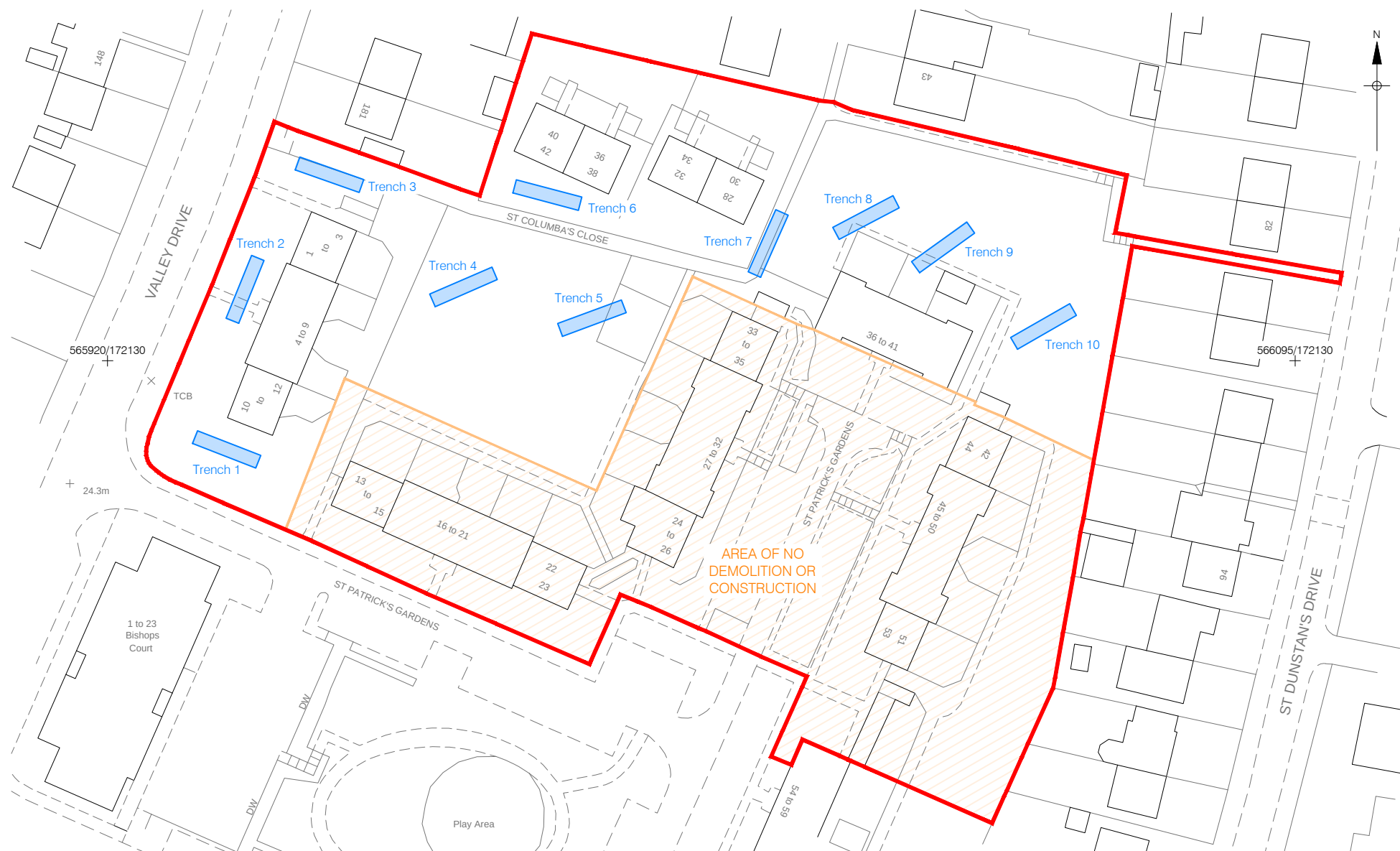
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12/03/2024 MR

Figure 2
Proposed Trench Locations
1:800 at A4

12 APPENDIX 1: LANDOWNER DETAILS



PCA South

Unit 54 Brockley Cross Business Centre, 96 Endwell Road, Brockley, London SE4 2PD



Operations ~ 020 7732 3925

Administration ~ 0207 358 2197

Post-excavation services ~ 020 7639 9091



info@pre-construct.com



www.pre-construct.com

PCA Ltd is **due to carry** out an archaeological investigation on the site below:

Site name: St Columba's Close, Gravesend

Site Address: St Columba's Close, Gravesend, Kent DA12 4AJ

Site Code **KSCC24**

We have been instructed / commissioned for the work by **Oakwood Building Contractors**.

Following completion of the site, the full site archive including artefacts worthy of retention will be deposited by PCA with a museum or repository who are committed to curate this archive.

To action this, PCA requires the name and address of the Landowner so that a Transfer of Title can be arranged for the deposition of the archive, by Deed of Transfer between the recipient museum or repository and the Landowner.

Therefore could you please complete the details below and return this letter by post or e-mail to the following:

Peter Moore

pmoore@pre-construct.com

Pre-Construct Archaeology Ltd

Unit 40, Brockley Cross Business Centre

96 Endwell Road, London SE4 2PD

NAME AND ADDRESS OF SITE OWNER / FREEHOLDER

Name: _____

Address: _____

COMPANY REGISTRATION NO. (Required for sites in Greater London) _____



Pre-Construct Archaeology Limited

Registered in England: No 3534122

Registered Office: Unit 54, Brockley Cross Business Centre, 96 Endwell Road, Brockley, London, SE4 2PD



13 APPENDIX 1: DIGITAL DATA MANAGEMENT PLAN

Section A: Project Information			
HER# (Site Code):	KSCC24	Other Site Codes	n/a
Site Full Location	St Columba's Close, Gravesend, Kent DA12 4AJ		
OASIS ID:	tbc	K-Code:	K8854
Museum Acc. #	tbc	NGR #	TQ 17763 69039
Planning Ref #:	20221179	Planning Authority	Gravesham Borough Council
DMP Written	March 2024	DMP Last Updated	n/a
Project Manager/ Primary Contact:	Peter Moore	Project Type:	Evaluation
Client:		Site Supervisor:	Tbc
Data Sharing Agreement in Place?	No		
Data Management Responsibility	Pre-Construct Archaeology Limited	Who will take possession of the generated data at the end of the project	Archaeology Data Service (ADS)
Section B: Estimated Volume of Data			
File types generated as part of the project archive by PCA:			
Data Type	Format	Estimated Volume	Details/Comment
Spreadsheets	Excel (.xlsx), .csv	Tbc	
Database	Access (.accdb)	Tbc	
Text/Documents	.pdf, Word (.docx)	Tbc	
Images	.jpeg, .png, .DNG	Tbc	
Graphics	.dwg,	Tbc	
GIS	.shp	Tbc	
Will existing or external data be utilised?			YES
If yes, list type of data and source: External specialist reports, external images			
Data Type	Format	Estimated Volume	Source
Images	.jpeg, .png, .DNG	Tbc	
Graphics	.dwg,	Tbc	
GIS	.shp	Tbc	
Text/Documents	.pdf, Word (.docx)	Tbc	
Section C.: Data Acquisition, Processing, and Analysis			
What methods and data standards will be undertaken?			
Field data will be collected through digital and analogue means as set out within the Written Scheme of Investigation. All data that will be collected will aim to work to best practice guidelines as outlined by CIFA and the ADS, as well as any specific London guidelines, whenever possible and will be updated as the project progresses, or as guidance is modified.			
What file naming/structure is in place and how will version control be maintained? Display example below.			
Example file name: PCA_BBN22_Bellamy-ByngSt_eval_01_JB Key: PCA (Organisational identifier) BBN22 (site code) Bellamy-ByngSt (Site name) Assessment (report type) 01 (version control identifier) JB (author identifier) The project archive will be stored in a project specific folder, with sub folders being utilised to further sub-classify data as appropriate (e.g. databases, photos, reports, etc.).			
What Quality Assurances of the data are in place?			
All digital instruments used to capture data on site and during post-ex (e.g. cameras, GPS/RTK units, etc.) will be appropriately calibrated and checked to be in full working order prior to fieldwork and subsequent analysis to ensure accurate data capture. Site records and data will be reviewed during project delivery to guarantee all digital data is both secure and correct.			
Section D: Documentation and Metadata:			
How can the data be read?			
Data collected during the course of the project will include standard formats as listed within section B.			
What documentation and metadata will be provided when the data is archived?			
A catalogue of the digital archive, material archive, paper archive, and the supporting metadata will be provided to the digital repository			
Section E: Ethics and Legal Compliance:			
How can the identity of individuals be protected if required			
Personal data will be removed from the digital archive prior to deposition, and permission to include personal data will be gained during the project if required.			
Is the data GDPR 2018 compliant?			
All digital archive data is compliant with GDPR as outlined within PCA's GDPR policy.			
Who owns the data generated during the course of this project?			
Copyright for all data generated or collected by the project team belongs to PCA. However, if external data is			

utilised, formal permission or licences will be obtained prior to use, and correct citation given during reporting and when archived. Any licences agreed with external parties will be included within the project archive.		
Section F: Storage and Backup:		
Is sufficient storage in place?		
All project data will be held on a server based at our London office. The server has sufficient space to hold all data generated during the project.		
What backups are in place?		
Project data will be stored on a companywide intranet and on servers located at our London office.		
What data security is in place?		
All project data is restricted by permission-based access and single factor authentication. The only exception to this is when external finds or data specialists are consulted, with only files pertinent to their role are shared directly.		
Section G: Selection and Preservation:		
Which data will be selected for inclusion within the project archive?		
Selection of data that will be included within the project archive will be informed by the WSI, Project Brief, research aims, and specialist recommendations. All data selected for preservation will be logically named, identified, and structured, and will adhere to the formats listed in section B. Any deselected data will be deleted after deposition with the ADS or relevant archival repository.		
What is the long-term preservation plan for the project dataset?		
The digital archive will be deposited with the ADS.		
If this is a larger project, has the ADS been contacted regarding accession of the project dataset?	NO	
Has the Museum or depository been contacted	NO	
Section H: Data Dissemination:		
How will the dataset or parts of it be shared?		
The final project report will be uploaded to the HER via OASIS and subsequently released onto ADS's report library. Additionally, the report will be published either through a full publication, or as a note in the regional archaeological journal. After deposition of the digital archive, the ADS and relevant depository are able to share the data under licence.		
Section I: Responsibilities:		
Who will manage the data?		
The project manager will be responsible for implementing the data management plan and its security.		
Roles and Responsibilities:		
Action	Responsible Person(s)	Details/Comment
Field Data	Field team	Including initial storage and backup
Data Analysis and Interpretation	Site Supervisor/Project Manager	
Data Archiving	Archives Officer	
Data Dissemination	Project Manager/Archives Officer	Archives officer will be responsible for uploading report onto OASIS.
GDPR Compliance	Project Manager/Archives Officer/IT Specialist	
General Data backup	IT Specialist/Archives Officer	

14 APPENDIX 3: KCC FIELDWORK NOTIFICATION FORM

Sections A and B to be sent digitally to KCC Heritage Conservation Group <u>in advance of the start of fieldwork.</u> Section C to be completed and sent <u>at end of fieldwork.</u> Section D to be filled in and sent with completed report.				
SECTION A - PROJECT DETAILS				
Site/Project Name:	St Columba's Close		NGR:	TQ 65972 72108
	Gravesend			
	Kent			
Site Address: St Columba's Close, Gravesend, Kent DA12 4AJ				
Archaeological Contractor (incl. name and address of project contact):				
Pre-Construct Archaeology Limited, Peter Moore, Director,				
Unit 54 Brockley Cross Business Centre, 96 Endwell Road, London SE4 2PD				
Commissioning Body/Client:				
Oakwood Building Contractors				
Development Proposals/Reason for Fieldwork:			Planning Reference: 20221179	
Archaeological Evaluation in advance of proposed development				
The demolition of 26 homes (including caretaker's facility) and construction of 46 new homes (including re-provision of the caretaker's facility) within two blocks of flats and two house and maisonette terraces with associated carparking and cycle storage.				
SECTION B - COMMENCEMENT OF FIELDWORK				
Type of Archaeological Fieldwork:		Site Supervisor:	tbc	
Evaluation		Site Contact Details: tbc		
Specification for Works:				
Local Museum Notified:			Site Code: KSCC24	
	Date:			
Local Arch Soc Notified:				
	Date:			
START DATE:	tbc	ANTICIPATED DURATION:	8	days/weeks
I (archaeological contractor) confirm that all necessary provision has been made for the resources to complete the archaeological fieldwork, post-excavation analysis and reporting in accordance with the agreed specification.				
Name:	Peter Moore			
On behalf of:	Pre-Construct Archaeology Ltd			
Signed:	Peter Moore	Date:	12/3/24	

SECTION C - COMPLETION OF FIELDWORK			
Date Fieldwork Completed:		Was fieldwork monitored by KCC/EH/Other?	
Further Fieldwork Anticipated:		Who?	
Map attached showing site location and extent of intervention?			
Summary of results (Continue on separate sheet if necessary):			
Agreed Reporting Stages and Program:			
Name:			
On behalf of:			
Signed:		Date:	

SECTION D - COMPLETION OF POST-EXCAVATION ANALYSIS & REPORTING							
Reports Submitted (Titles)	Copies to: (Number)						
	KCC	LPA	Arch Soc	Client	EH	Other	Digital Copies
HER Data:							
Digital Mapping Data?			Notes:				
Location and Destination of Archive:							
Name:							
On behalf of:							
Signed:					Date:		

15 APPENDIX 4: KCC EVALUATION SPECIFICATION

EVALUATION – TRIAL TRENCHING REQUIREMENTS

1. Introduction

- 1.1 Archaeological trial trenching involves the sampling of a site to determine whether archaeological remains are present and if so, to assess their character, extent, date, condition and potential importance. Trial trenching will aim to determine, as far as is practicable and without comprising the integrity of important archaeological deposits, the full stratigraphic sequence at the site, including information on the 'natural' substrate and soil conditions.

2. General Requirements

- 2.1 Trial trenching will be carried out by archaeological organisations (from here on referred to as 'the Archaeological Contractor') acceptable to the relevant Local Planning Authority, with recognised experience and expertise in the specified type of work to be undertaken. Registration with the Institute of Field Archaeologists (IFA) as a Registered Archaeological Organisation (RAO) will normally be considered as an indicator, but not a prerequisite, of such expertise and experience. A good working knowledge of the archaeology of Kent will also be considered highly desirable.
- 2.2 Prior to any work being undertaken the Archaeological Contractor will inform the County Archaeologist and communicate details of the proposed team, including (if required) CVs for senior staff and specialists. Senior staff and specialists will need to demonstrate an appropriate level of experience and expertise and should preferably be, where appropriate, Members of the Institute of Field Archaeologists (IFA).
- 2.3 Prior to undertaking the trial trenching the Archaeological Contractor will need to demonstrate that the necessary resources are in place to undertake the work, through to reporting. The Archaeological Contractor will have available appropriate specialists necessary to support the successful completion of the archaeological fieldwork and post-excavation work.
- 2.4 The work will be supervised on site at all times by a member of staff with the required level of experience and who will be responsible for the conduct of on- site work.

3. Pre-site Requirements

- 3.1 Prior to undertaking trial trenching the Archaeological Contractor will have gathered and considered the following information:
- Relevant information on the County Historic Environment Record (HER) held by Kent County Council and maintained by the Heritage Conservation Team;
 - Any earlier reports of fieldwork relevant to the site;
 - Solid and drift geology;
 - Geotechnical site investigation data (if available);
 - Any desk-based studies of the site.
- 3.2 In certain circumstances the following will also be considered:
- Relevant published secondary sources
 - Relevant historic maps held at the Centre for Kentish Studies
 - Aerial photographs where cropmarks are considered to indicate archaeology on or close to the site.
- 3.3 The Archaeological Contractor will ensure that all reasonable measures have been taken to identify any constraints to undertaking the evaluation

trenching. The Archaeological Contractor will seek information on the presence of services, any ecological constraints, the presence of Public Rights of Way, the presence of contaminated land or any other risks to health and safety.

3.4 The Archaeological Contractor will make provisional arrangements for the deposition of the site archive with an appropriate museum or suitable repository agreed with the County Archaeologist. The Archaeological Contractor will obtain a provisional accession number for the site archive from the recipient museum (except where the museum prefers to issue an accession number following completion of fieldwork) and any guidelines from the recipient museum regarding deposition of the site archive.

3.5 Full copies of the Specification must be issued to the field officer responsible for on-site work and a copy of the agreed Specification and any additional method statements must be available on site at all times. The team carrying out the trial trenching must be familiar with the Specification and have access on site to any previous evaluation or survey reports.

3.6 The Archaeological Contractor will inform the County Archaeologist of the start date of the work (at least five working days before) and arrange for monitoring visits to be undertaken, using the Site Fieldwork Notification Form (see Appendix II). The Archaeological Contractor will continue to keep the County Archaeologist informed of the progress of work and will notify the County Archaeologist immediately if particularly important archaeological remains are encountered.

4. Objectives

4.1 The purpose of the evaluation is to establish whether there are any significant archaeological deposits at the site that may be affected by the proposed development.

4.2 The evaluation is thus to

- a) ascertain the extent, depth below ground surface, depth of deposit, character, date, significance and condition of any archaeological remains on site;
- b) establish the extent to which previous development and/or other processes have affected archaeological deposits at the site; and
- c) establish the likely impact on archaeological deposits of the proposed development.

5. Scope of trial trenching

5.1 The layout and number of trenches excavated will be in accordance with the Specification, details of which are given in Part A. Any amendment to trench design due to on-site constraints will be agreed with the County Archaeologist in advance of the work being undertaken.

5.2 Particular issues that will be addressed by the evaluation are set out in part A of this specification.

6. Machine and Hand Excavations

6.1 All machine excavation of trial trenches will be carried out under constant archaeological direction by a suitably experienced archaeologist familiar with the ground conditions anticipated on the investigation site.

6.2 Machine excavation of trial trenches will be undertaken by a mechanical excavator using a flat-bladed bucket. No mechanical excavators, earthmoving or other vehicles will travel within any excavated trench until it has been signed off by the County Archaeologist or specific agreement has been reached to enable re-stripping.

6.3 The Archaeological Contractor will maintain a constant watch and closely

- inspect on an ongoing basis surfaces exposed during the course of machining. Surfaces will be maintained clear of loose spoil.
- 6.4 Subject to additional requirements of the landowner or client, turf, topsoil and other distinct deposits will be stored separately and at least 1 metre from the edge of the evaluation trench.
- 6.5 Machine-excavated deposits and the exposed surface will be regularly scanned for the presence and collection of artefacts. Exposed surfaces and excavated spoil will be scanned by metal detector.
- 6.6 The excavation by machine is to be taken down to the top of any significant archaeological level or to the top of 'natural' subsoil where no archaeological deposits have been found at a higher level. In the event of significant archaeological deposits being encountered the County Archaeologist is to be informed immediately. Some further limited excavation may be required to clarify the nature, character and date of the archaeological deposits but the primary objective is to establish the presence/absence of archaeological deposits, their depth and extent.
- 6.7 Where complex archaeological stratification is encountered, deposits will be left in situ and measures to assess the depth of this stratification agreed with the County Archaeologist. Where modern features are seen to truncate the archaeological stratification, then these will be carefully removed without damage to surrounding deposits to enable the depth of stratification to be assessed.
- 6.8 If archaeological remains of limited significance are found to be present cutting through or overlying soils (e.g. colluvium) which conceal lower archaeological horizons then these will need to be recorded and investigated prior to removal of the underlying soil with the agreement of the County Archaeologist.
- 6.9 Machine excavation from the surface must be taken down in spits of no more than 100mm thickness to ensure that deposits and features are not over-excavated and that any artefacts/biological evidence in the soil are recorded.
- 6.10 Test sondages may need to be excavated through 'natural' subsoil in trial trenches to confirm that the solid geology has been reached. Such sondages will be positioned to avoid damage to archaeological remains.

7. Investigation and Sampling Strategy

- 7.1 Archaeological features will generally only be sampled sufficiently to characterise and date them. Full excavation of features will not be undertaken at this stage unless otherwise agreed with the County Archaeologist. Care will be taken not to damage archaeological deposits through excessive use of mechanical excavation.
- 7.2 Where necessary the surface and sections of trenches will be hand cleaned to define archaeological deposits and features clearly.
- 7.3 Measures will be taken to protect particularly significant, valuable or sensitive archaeological remains from exposure, accidental damage and / or theft.
- 7.4 Exposed surfaces will be left for a minimum of 48 hours to allow weathering-out of features to occur. No trenches will be backfilled until agreed with the County Archaeologist.

Burial Remains

- 7.5 Inhumation and cremation burials will normally be left in-situ for the purposes of evaluation. Subject to agreement with the County Archaeologist, graves may be partially excavated to confirm the presence of human remains and their state of preservation but skeletal remains will be left in situ. Graves will be scanned by metal detector to assess whether any grave objects are likely

- to be present.
- 7.6 Inhumation and cremation burials which are in a fragile state and are likely to be damaged by the reinstatement of evaluation trenches will be excavated and lifted subject to agreement with the County Archaeologist.
- 7.7 The Archaeological Contractor will put in place arrangements to ensure the security, protection from deterioration and damage, and the respectful treatment of human remains and burial goods.
- 7.8 On sites where burial remains are expected the Archaeological Contractor will submit to and agree with the County Archaeologist detailed procedures for the assessment, recording and, where necessary, the excavation of inhumation and cremation burials.
- 7.9 The Archaeological Contractor will have available within the team or on call an appropriately qualified and experienced osteoarchaeologist to supervise the excavation and removal of any human remains (where this is necessary) from the site. The Archaeological Contractor will use an appropriately qualified and experienced archaeological conservator to assist, where appropriate, the lifting of human remains and grave goods / cremation vessels.
- 7.10 In the event that human burials are discovered, a Ministry of Justice Licence will be required (in accordance with Section 25 of the Burial Act 1857) before the remains can be lifted. The need for a Ministry of Justice Licence applies to both inhumation and cremated remains. Application for a Licence will be made by the Archaeological Contractor. The Archaeological Contractor is to comply with the conditions of the Licence and discuss any requirements of that Licence which conflict with the agreed method of investigation with the County Archaeologist.
- 8. Finds recovery processing and treatment**
- 8.1 All artefacts recovered during the excavations on the site are the property of the Landowner. They are to be suitably bagged, boxed and marked in accordance with the United Kingdom Institute for Conservation, *Conservation Guidelines no.2* and on completion of the archaeological post-excavation programme the landowner will arrange for them to be deposited in a museum or similar repository agreed with the County Archaeologist and the Local Planning Authority.
- 8.2 Artefacts will be excavated carefully by hand. The Archaeological Contractor will use an appropriately qualified and experienced archaeological conservator to assist in the lifting of fragile finds of significance and / or value.
- 8.3 Artefacts will be collected and bagged by archaeological context. The location of special finds will be recorded in three dimensions. Three-dimensional recording of in-situ flint working deposits will be carried out.
- 8.4 Where appropriate to address the research objectives of the archaeological evaluation, sieving of deposits will be undertaken to maximise recovery of small artefacts. A strategy for such sieving will be agreed in advance with the County Archaeologist.
- 8.5 Records of artefact assemblages will clearly state how they have been recovered, sub-sampled and processed.
- 8.6 Excavated artefacts will be bagged upon recovery or placed in finds trays. They must not be left loose on site.
- 8.7 **Treatment of treasure** - Finds, discovered by the Archaeological Contractor, falling under the statutory definition of Treasure (as defined by the Treasure Act of 1996 and its revision of 2002) will be reported immediately to the relevant Coroner's Office, the Kent Finds Liaison Officer (FLO) who is the

designated treasure co-ordinator for Kent, the landowner and the County Archaeologist. A Treasure Receipt (obtainable from either the FLO or the DCMS website) must be completed and a report submitted to the Coroner's Office and the FLO within 14 days of understanding the find is Treasure. Failure to report within 14 days is a criminal offence. The Treasure Receipt and Report must include the date and circumstances of the discovery, the identity of the finder (put as unit/contractor) and (as exactly as possible) the location of the find.

- 8.8 All metal objects, other than late post medieval objects, will be X-rayed unless otherwise agreed with the County Archaeologist.

9. Archaeological Science and Environmental Sampling

- 9.1 A structured programme of environmental sampling appropriate to the aims of the evaluation will be implemented. The strategy and methodology for the sampling, recording, processing, assessment, analysis and reporting of deposits with environmental archaeology potential will be in accordance with English Heritage Centre for Archaeology Guidelines "Environmental Archaeology – A guide to the theory and practice of methods, from sampling and recovery to post-excavation" (March 2002). Any variation to this guidance will be agreed in advance with both the County Archaeologist and the English Heritage Regional Scientific Advisor. Particular note will be taken of the following requirements.
- 9.2 The Archaeological Contractor will use an appropriately qualified and experienced geo-archaeologist to record any deposits of particular significance such as buried soils or advise on depositional processes.
- 9.3 An appropriately qualified and experienced environmental archaeologist will devise and supervise the implementation of the environmental sampling strategy.
- 9.4 The advice of the English Heritage Regional Scientific Advisor is to be sought regarding specialist sampling requirements and any scientific applications relevant to the archaeological evaluation of this site.
- 9.5 Where deposits are dry, bulk samples for the recovery of charred plant remains, small bones and finds, will be taken from sealed and datable features such as pits, ditches, hearths and floors. Each context will normally be sampled. The size of the sample is expected to be in the range of 40-60 litres per context or 100% of smaller contexts. Samples will not be taken from the intersection of features.
- 9.6 For large features / spreads appropriate consideration will be given to sampling on a grid system if this fits in with the aims of the evaluation.
- 9.7 Where good conditions for the preservation of bone have been identified, all large bones will be collected by hand and sieving of bulk samples up to 100 litres will be undertaken as appropriate.
- 9.8 Mollusc samples of 2 litres each will be taken vertically from appropriate sections to investigate the changes of vegetation through time.
- 9.9 Where deposits are wet, waterlogged or peaty, monoliths will be taken along cleaned vertical surfaces for the retrieval of pollen, diatoms, ostracods and foraminifera. The numbers to be taken will be agreed with the County Archaeologist.
- 9.10 For wet, waterlogged or peaty deposits, bulk samples of 20 litres will be taken from visible layers or spits for the retrieval of plant macro-remains and insects.
- 9.11 Environmental samples from dry deposits will normally be processed by flotation following the evaluation fieldwork and the residues will be sorted to

retrieve small bones, small finds and charcoal that has not floated. Environmental samples from wet deposits will normally be sent to specialists for processing in laboratory conditions. The Archaeological Contractor will agree with the County Archaeologist any necessary delay in completion of the reporting of the evaluation to enable provisional results to be included.

9.12 The Archaeological Contractor will make appropriate provision for the application of scientific dating techniques such as radiocarbon, dendrochronology, archaeomagnetic dating, OSL and thermoluminescence dating. The advice of the English heritage regional Scientific Advisor will be sought in advance of the application of these techniques. The Archaeological Contractor will agree with the County Archaeologist any necessary delay in completion of the reporting of the evaluation to enable provisional results to be included.

9.13 Where appropriate the guidance in the following English Heritage papers will be followed:

- "Guidelines on the recording, sampling, conservation, and curation of waterlogged wood" 1996
- "Dendrochronology – guidelines on producing and interpreting dendrochronological dates" 1997
- "Archaeometallurgy" 2001
- "Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation" 2002
- "Human bones from Archaeological Sites: Guidelines for Producing Assessment Documents and Analytical Reports" 2004
- "Geoarchaeology" 2004
- "Wet Wood and Leather"
- "Archaeomagnetic Dating: Guidelines on producing and interpreting archaeomagnetic dates" 2006
- "Guidelines on the X-radiography of archaeological metalwork" 2006

10. Recording

10.1 All trenches, structures, deposits and finds will be recorded according to accepted professional standards. Sufficient data must be recorded to allow the required level of assessment and reporting (see section 11).

10.2 Recording must be carried out to a sufficiently high standard to provide a full record of the deposits evaluated, including in trenches where no archaeology is identified.

10.3 All features, deposits and finds are to be recorded according to accepted professional standards.

10.4 All archaeological contexts are to be recorded individually on context record sheets. A further more general record of the work, comprising a description and discussion of the archaeology, is to be maintained as appropriate. Context sheets are to be primarily filled in by the archaeologist excavating the feature or deposit.

10.5 A plan to indicate the location of the boundaries of the evaluated area and the site grid is to be drawn at a scale of 1:1250 (or a similar appropriate scale). Plans indicating the location of the excavated trenches and the location of all archaeological features encountered are to be drawn at an appropriate scale. An overall site plan is to be maintained at a scale of 1:100 or larger scale where appropriate. Sections will be drawn at a scale of 1:10. Significant archaeological features will normally be drawn in plan at a scale of 1:20 or 1:10 if appropriate. All detailed plans and sections are to be related to the 1:100 or 1:1250 plans. The 1:1250 and 1:100 plans are to be

- accurately related to the National Grid.
- 10.6 Long Sections indicating the full stratigraphic sequence will be drawn for all trenches. Where a very simple sequence is revealed representative sections (minimum 1m wide) at each end of the trench will be sufficient, but where more complex stratigraphy is encountered, complete trench sections will be drawn. In the case of complex stratigraphy, all four sections will be drawn.
- 10.7 All plans and sections are to be levelled with respect to OD.
- 10.8 All plans and sections are to be drawn on polyester based drafting film and clearly labelled.
- 10.9 A full black and white and colour (35mm transparency) photographic record of the work is to be kept. The photographic record is to be regarded as part of the site archive.
- 10.10 The Archaeological Contractor will keep a day to day digital photographic record of the investigation.
- 10.11 The Archaeological Contractor will ensure that the complete site archive including finds and environmental samples are kept in a secure place throughout the period of evaluation and post excavation works.
- 10.12 The site archive is to be consolidated after completion of the evaluation, with all site drawings inked-in, and records and finds collated and ordered as a permanent record.
- 11. Reinstatement and completion of fieldwork**
- 11.1 On completion, trenches will be backfilled, reinstated and left in a safe state to the requirements of the landowner / client.
- 11.2 Where vulnerable archaeological deposits remain within trial trenches these will be appropriately protected from damage as part of the reinstatement. Consideration will be given to providing a marker in backfilled trenches to highlight vulnerable archaeological deposits should re-excavation be necessary.
- 11.3 On completion of fieldwork the Archaeological Contractor will complete the relevant section of the Fieldwork Notification Form and submit it to the County Archaeologist.
- 12. Reporting**
- 12.1 Within three weeks of completion of the evaluation fieldwork (or longer in case of complex sites as agreed with the County Archaeologist) the Archaeological Contractor will produce a report, copies of which (as a minimum) are to be provided to:
- the Developer
 - the County Archaeologist
 - the Local Planning Authority
 - the Local Archaeological Society
- 12.2 When submitting the report to the County Archaeologist the Archaeological Contractor will provide written confirmation that the report has been submitted to the above parties.
- 12.3 If the Archaeological Contractor is required, contractually, only to submit reports directly to the developer or their agent, the Archaeological Contractor must inform the County Archaeologist in writing that they have completed the report and whom it has been forwarded to. The Archaeological Contractor must ensure that the developer is made aware of the need to circulate the report as in 12.1 above.
- 12.4 The Archaeological Contractor may determine the general style and format of the evaluation report but it must be completed in accordance with this

specification. The report must provide sufficient information and assessment to enable the County Archaeologist and the Local Planning Authority to reach an informed decision regarding any further mitigation measures that may be required and to stand as an appropriately detailed report on the archaeological fieldwork for future research.

12.5 Reports that do not provide sufficient information or that have not been compiled in accordance with the relevant sections of this specification will be returned to the Archaeological Contractor for revision and resubmission.

12.6 The report will be submitted to the County Archaeologist in a hard-bound hard-copy and in digital format. The digital copy will be supplied in .pdf format and will contain all text, images and plans present in the hard-copy report in a single .pdf file. The medium will be a CD-ROM formatted according to ISO 9660:1999.

12.7 **Report Format** - The final evaluation report will include as a minimum:

12.7.1 An **Abstract** summarising the scope and results of the archaeological evaluation.

12.7.2 An **Introduction** including:

- the location of the site with a National Grid Reference for the centre sufficient to locate the site to 1m accuracy (e.g. TQ 55555 77777 or easting: 555555, northing: 177777);
- an account of the background and circumstances of the work;
- a description of the development proposals, planning history and planning reference together with the archaeological condition (where appropriate);
- the nature of potential impacts arising from the proposals;
- the scope and date of the fieldwork, the personnel involved and who commissioned it;

12.7.3 An account of the **Archaeological Background** of the development site including:

- geology, soils and topography;
- any known existing disturbances on the site;
- background archaeological potential of the site. This will include a summary of the known Historic Environment Record entries within 500m of the boundaries of the site (or wider where appropriate). The HER entries will be quoted with their full KHER identifier (e.g. TR 36 NW 12);
- summary of any previous phases of archaeological investigation at the **development site**;

12.7.4 The **Methodology** employed during the evaluation must be detailed in the report. Any aims and objectives specified in the specification will be included as will any further objectives identified during the course of the evaluation. Constraints on the evaluation will also be described.

12.7.5 The report will include a quantification of the project archive contents, their state and future location.

12.7.6 The **Results** of the evaluation field work will be described trench by trench. This description must include for each trench:

- the dimensions of the trench;
- the nature and depth of overburden soils encountered;
- description of all archaeological features and finds encountered in each trench, their dimensions, states of preservation and interpretation;
- a description of the geological subsoil encountered in each trench;
- heights related to Ordnance Datum for a sufficient number of features and deposits. Where the trench results are complex a table showing the

dimensions and heights of features and deposits will be included for each trench.

- for complex stratigraphy a Harris Matrix diagram.

- 12.7.7 The **Finds** recovered during the course of the evaluation will be described, quantified and assessed by artefact type within the evaluation report. The report will also provide an indication of the potential of each category of artefact for further analysis and research. For each category of artefact the report will describe the method of processing, any sub-sampling, conservation and assessment undertaken. Where appropriate local reference collections will be referred to for descriptive and analytical consistency. Any implications for future archive, conservation or discard of the artefacts will also be set out.
- 12.7.8 The report will include a table showing, per trench, the contexts, classes and quantity of artefacts recovered, together with their date and interpretation.
- 12.7.9 The evaluation report will include an assessment of the **Environmental** potential of the site. Details will be provided of any environmental sampling undertaken in connection with the fieldwork and the results of any processing and assessment of the samples. The report will describe the method of processing, any sub-sampling and assessment. Any potential for future analysis of the samples or environmental remains recovered from the evaluation will be described. Implications for future archive, conservation or discard of environmental samples or remains will be detailed.
- 12.7.10 The report will include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.
- 12.7.11 Any results from the application of archaeological scientific techniques e.g. specialist dating will be included in the evaluation report.
- 12.7.12 An **Interpretation** of the archaeology of the site will be provided, including its location, extent, date, condition, significance and importance. This will be a synthesis of the stratigraphic, finds and environmental results of the investigation and will include, even if no archaeology is identified as present on the site, description of areas of disturbance, non-archaeological deposits and changes in geological subsoil where appropriate. This section of the report will be supported by a phased interpretative plan of the site, clearly showing the major areas and periods of archaeological activity.
- 12.7.13 An **Impact Assessment** will consider the potential effects of the development on the archaeological remains. This will summarise the archaeological results, describe how any identified archaeological potential identified relates to the site and how the development proposals will affect that archaeology. The report will highlight any areas of sensitivity within the site. Particular note will be made of any variations in the depth of overburden covering any archaeological deposits revealed.
- 12.7.14 The **Conclusion** will summarises the method, results, interpretation and impact assessment.
- 12.7.15 The evaluation report will assess the potential for preservation at the site to inform decisions about mitigation strategies. It will not include any recommendations on preservation measures or further work unless otherwise agreed with the County Archaeologist.
- 12.7.16 The evaluation report will include comments on the effectiveness of the methodology employed and the confidence of the results and interpretation.
- 12.7.17 **Figures / illustrations** – The report will include sufficient illustrations to support descriptions and interpretations within the report text. Figures are to

be fully cross-referenced within the document text. As a minimum the evaluation report will include the following figures:

- a site location plan tied into the Ordnance Survey at 1:1250. The plan will also include at least two National Grid points to 1m accuracy and show the site boundary;
- trench location plans at an appropriate scale showing the layout of
- archaeological features, coloured by phases or period. The plan will show the location of all trenches and features. A copy of the plan will be overlain on the proposed development plan where this is known. Where possible, projection of archaeological features outside of the trench areas will be included on the plan. This plan will also include two National Grid points;
- plans of the features revealed in each of the trenches at a larger scale e.g. 1:20 or 1:50; such plans are to also illustrate areas of disturbance, change in subsoil and location of sections; The location of significant finds and samples taken will also be indicated;
- relevant section drawings and trench soil profiles as appropriate;
- illustrations and/or photographs of significant finds.

12.7.18 All report illustrations must be fully captioned and scale drawings must include a bar scale. Standard archaeological drawing conventions must be used. Plan and section illustrations must include the numbers of all contexts illustrated. North must be included on all plans and will be consistent. Sections must indicate the orientation of the section and the Ordnance Datum height of the section datum.

12.7.19 Black & White or Colour photographs will be included to illustrate key archaeological features, trenches and site operations. All photographs will be appropriately captioned.

13. Archive Preparation & Deposition

13.1 The site archive, to include all project records and cultural material produced by the project, is to be prepared in accordance with *Guidelines for the preparation of excavation archives for long-term storage (UKIC 1990)*. On completion of the project the Archaeological Contractor will arrange for the archive to be deposited in accordance with the provisional arrangements made with a suitable museum or repository at the onset of fieldwork. Any alternative arrangements will be agreed with the County Archaeologist and the Local Planning Authority.

14. Monitoring and Liaison

14.1 The Archaeological Contractor is to allow the site records to be inspected and examined at any reasonable time, during or after the evaluation fieldwork, by the client/developer, the County Archaeologist or any designated representative of the Local Planning Authority

14.2 Once the trenches have been evaluated and an initial assessment of the archaeology carried out, there will be an on-site meeting with the County Archaeologist to determine if further evaluation work is appropriate in order to meet the objectives.

14.3 The Archaeological Contractor will liaise closely with the County Archaeologist throughout the course of the evaluation and will arrange for on-site meetings at key decision points.

14.4 The Archaeological Contractor is to make contact with the local archaeological society and keep them informed on the progress of the evaluation. Subject to health and safety constraints the Archaeological Contractor will afford opportunity to the local archaeological society to visit the evaluation site. Copies of all reports will be provided to the local

archaeological society.

- 14.5 The Archaeological Contractor is to circulate a completed Fieldwork Notification Form (Appendix 2) at the start and completion of fieldwork and at the completion of post excavation reporting stages.

15. Copyright and data protection

- 15.1 Information submitted to the County Archaeologist in conjunction with planning applications automatically becomes publicly accessible and can be viewed by anyone at any time. In addition, the Local Planning Authority and Kent County Council are subject to the requirements of the Freedom of Information Act (2000) and Environmental Information Regulations (2004). Information may be subject to FoI or EIR requests and any documentation submitted in connection with the project may be made publicly available unless doing so contravenes the Data Protection Act (1998).
- 15.2 While copyright of reports and other information arising from the fieldwork remains with the originator, the Archaeological Contractor will undertake to make this information available to interested parties. The Archaeological Contractor will agree to allow reports of the fieldwork to be copied and made available to interested parties for archaeological research. The reports may be made available on the Internet no sooner than three months after the submission of the report. Archaeological Contractors who believe that there are special reasons for not publishing the report on the Internet should reach a separate agreement with the County Archaeologist.

16. Health and Safety

- 15.3 The Archaeological Contractor will conduct the work in compliance with the Health and Safety at Work etc Act 1974. The Archaeological Contractor will also follow the guidance set out in "Health and Safety in Field Archaeology" Standing Conference of Archaeological Unit Managers 1997.
- 15.4 The Archaeological Contractor is expected to maintain a Health and Safety Policy and a procedures manual and have available appropriate expertise in Health and Safety advice. Site staff will have an appropriate level of training to enable them to carry out fieldwork safely.
- 15.5 The Archaeological Contractor will maintain the site in a safe condition. All hazards will be appropriately identified and managed. Deep excavations will be appropriately fenced.
- 15.6 The Archaeological Contractor will carry out a risk assessment prior to commencement of fieldwork and where appropriate a COSHH assessment. Risks and measures to reduce risk will be communicated to all working on and visiting the site.
- 15.7 The Archaeological Contractor will have available suitable site accommodation, welfare and toilet facilities.

17. KCC HER

- 15.8 The Archaeological Contractor is to provide the Kent Historic Environment Record with copies of all reports in both hard-bound hard-copy and digital format (see 12.6 above).
- 15.9 Upon completion of the excavation the Archaeological Contractor will supply the Kent Historic Environment Record with a completed HER form (see Appendix 1)
- 15.10 The Archaeological Contractor will supply the Kent Historic Environment Record with the following digital datasets:
- A .dxf file containing polygon data that describes in detail all excavated/ watched area boundaries, whether trenches, test pits, excavated areas or areas examined by watching brief. This .dxf file must be internally geo-

referenced (i.e. the co-ordinate system used in the file must be the Ordnance Survey co-ordinate system).

- A separate .dxf file that contains a number of Layers. Each Layer should represent a different phase of the archaeological remains on site. The name of each Layer must be the phase number used on the site accompanied by a date range (e.g. "2, from –2000 to –800", "7A, from 410 to 700" etc). Each layer must contain only the features relevant to that phase digitized as polylines. Where the dating is based on scientific dating methods such as radiocarbon, the dates must be calibrated calendar dates.
- 15.11 A guidance document has been produced for Kent County Council that will inform contractors as to how this information can be produced within AutoCad. This document is available from the County Archaeologist and Kent County Council Historic Environment Record.
- 15.12 The Archaeological Contractor should also provide a representative selection of digital site photographs illustrating the archaeology of the site and the operations of the investigation. These will be in .jpg format at a minimum 300dpi. These will be deposited with the County HER and will be used for presentations on aspects of the archaeology of Kent.
- 15.13 It is to be understood that photographs and notes taken by KCC Archaeological Officers in connection with the work that do not identify individuals or site locations may be used by KCC for outreach and publicity purposes, including on social media sites such as Facebook, Twitter etc. The Archaeological Contractor should, preferably in advance of the works, raise with the KCC Archaeological Officer any concerns that they or their client may have over the use and dissemination of images or information for outreach purposes. In such cases the Archaeological Contractor and their client will agree a protocol with the KCC Archaeological Officer for the appropriate dissemination and use of images and information which balances the concerns of the contractor and/or client with the objective of ensuring that the people of Kent are kept informed of the archaeological discoveries in the county.'
- 18. General**
- 18.1 In carrying out the work the Archaeological Contractor is to abide by:
- all statutory provisions and by-laws relating to the work in question,
 - the Institute of Field Archaeologists *Code of Conduct*,
 - the Institute of Field Archaeologists *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*.

APPENDIX 1 Kent County Council HER summary form

Site Name:	
Site Address:	
Summary: (50 words max)	
District/Unitary:	Parish:

Period(s):		
NGR (centre of site : 8 figures): (NB if large or linear site give multiple NGRs)		
Type of archaeological work (underline)		
Evaluation:	Watching Brief	Field Walking
Documentary study	Building recording	Earthwork
survey		
Excavation:	Geophysical Survey	Field Survey
Geoarchaeological investigation		
Date of Recording:		
Unit undertaking recording:		
Geology:		
Title and author of accompanying report:		
Summary of fieldwork results (begin with earliest period first, add NGRs where appropriate) (200 words max)		
(cont on attached sheet)		
Location of archive/finds:		
Contact at Unit:	Date:	

APPENDIX 2 - FIELDWORK NOTIFICATION FORM

Guidance for Completing the Kent Archaeological Fieldwork Notification Form

Purpose

The purpose of the form is to improve the notification, tracking and monitoring of archaeological fieldwork in Kent. Its primary purpose relates to archaeological work being undertaken for the purposes of planning and development but it is hoped that it will be also usable by archaeological societies and other bodies undertaking fieldwork in the county.

Approach

- The archaeological body undertaking the fieldwork should fill in the form. Sections A and B should be filled in before fieldwork starts and submitted to the County Archaeologist. This may be submitted in digital copy to speed things along but a signed copy should follow in the post.
- Section A contains details of the project while Section B refers specifically to the onset of the phase of fieldwork. In signing section B the Archaeological Contractor is confirming that the necessary funds and resources to complete the works to the specification have been made available.

- The form should not be filled in separately for each period of an intermittent watching brief but should be filled in for major stages of fieldwork, for example separate phases of evaluation and excavation.
- Section C should be submitted at the completion of the fieldwork stage and should if known indicate whether further work is anticipated. This section sets out a brief summary of findings and what reports are to be submitted. For excavations these will include interim, assessment and full reports. Again the form may be submitted digitally with a signed copy to follow in the post. (The details of Sections A and B should remain filled in on the same form).
- Section D should be submitted as reports are submitted to the County Archaeologist. For excavations the form need not be submitted with interim reports but should be submitted with assessment and full reports.



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