

WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL WORKS: SITE OF BROOKSIDE BUNGALOW, HADFIELD, DERBYSHIRE

Site Location: Site of Brookside Bungalow, Hadfield, Derbyshire
NGR: 40226, 39638
Prepared for: Tyler Pearmain
Status of WSI: Final

1 SUMMARY

- 1.1 The site of Brookside Bungalow occupies the location of Higher Mill, which was demolished around 1910 to 1921. The proposals include the demolition of Brookside Bungalow and the construction of 6 new dwellings. A 600mm remediation excavation for the gardens to the rear of the new dwellings is also required.
- 1.2 The following archaeological condition has been imposed on the consent:
- “6. a) No development shall take place until a Written Scheme of Investigation for archaeological work has been submitted to and approved by the local planning authority in writing, and until the building recording element of the scheme is complete to the satisfaction of the local planning authority.. The scheme shall include*
- an assessment of significance and research questions; and*
 - The programme and methodology of site investigation and recording*
 - Provision to be made for analysis and reporting of the site investigation and recording;*
 - Provision to be made for publication and dissemination of the analysis and records of the site investigation;*
 - Provision to be made for archive deposition of the analysis and records of the site investigation;*
 - Nomination of a competent person or persons/organization to undertake the works set out within the Written Scheme of Investigation*
- b) No development shall take place other than in accordance with the archaeological Written Scheme of Investigation approved under condition 8 a) above;*
- c) The development shall not be occupied until the archaeological site investigation and post investigation analysis and reporting has been completed in accordance with the programme set out in the archaeological Written Scheme of Investigation approved under condition 8 a) and the provision to be made for archive deposition have been secured.”*
- 1.3 This Written Scheme of Investigation (WSI) has been prepared in consultation with and agreed by Steve Baker, Development Control Archaeologist for Derbyshire County Council.

The work will be carried out in accordance with this WSI.

2 SITE LOCATION & DESCRIPTION

- 2.1 The site is located off Lambgates Lane, Hadfield, Derbyshire. It is bounded to the north and east by an area of grass and mature trees, beyond which lie Vale House Drive and Ehlinger Avenue. Lambgates Lane borders the site to the west and south.

3 DESIGNATIONS & CONSTRAINTS

- 3.1 There are no designated heritage assets with the site or its immediate surroundings.

4 ARCHAEOLOGICAL INTEREST

- 4.1 The site appears to have remained undeveloped until the construction of Higher Mill, a cotton mill by John or Thomas Thornley during the late 18th or early 19th centuries. The date of the mill indicates that it would have utilised water-power, while the position of the mill pond at the south of the site and an outfall to Padfield Brook at the north suggests that the waterwheel would have been located on the north side of the mill. The mill was subsequently known as White Mill and was operated by the Platt family, before it became disused between 1887 and 1898.
- 4.2 Brookside bungalow was constructed following the mill's demolition between 1910 and 1921. The bungalow occupies part of the site of the principal mill building and a loading and unloading bay that were shown on an 1810 engraving.
- 4.3 With the exception of sections of boundary and mill pond walling, no obvious traces of former mill structures appear to survive above ground. It is not clear to what extent elements of the former mill may survive as sub-surface features, however; such deposits may include foundations, basement levels, sections of the goit and the former wheelpit. The bungalow itself is not considered to be of historic or architectural merit.
- 4.4 The proposed development envisages the demolition of the bungalow and the construction of three semi-detached buildings. Groundworks undertaken in association with the development are likely to impact sub-surface archaeological deposits associated with Higher Mill.

5. SCOPE OF ARCHAEOLOGICAL WORKS

- 5.1 The archaeological works will comprise a watching brief on the excavation of foundations for the new houses and for the remediation excavation to a depth of 600mm for the new gardens to the rear of the house plots. The watching brief will cover works in the area highlighted on Figure 2.
- 5.3 If significant archaeological remains are encountered in the new garden plots to the rear of the new houses, these will be cleaned and recorded, left *in situ* and re-buried where possible. The recording methodology will follow that provided in Section 8. If reburial of the remains is not possible then the remains will be excavated and recorded within the 600mm depth of impact. Excavation and recording will be as detailed in Section 8.

6 OBJECTIVES

- 6.1 The objective of the archaeological work is to investigate and record elements of Higher

Mill that will be affected by the development. Specifically the investigations will aim to consider the location of the wheel pit and any associated goits; and the arrangement and use of those aspects of the mill structures exposed.

7 WATCHING BRIEF

- 7.1 The watching brief will comprise a **continuous/comprehensive** watching brief on any excavation for foundations and services; and on the excavation for the remediation excavation for the new garden areas. The where works will be covered by the watching brief is shown on Figure 2. All excavation will be carried out in successive level spits under archaeological supervision.
- 7.2 If a base plan of intervention areas is available, the areas being monitored will be determined using this information. If significant archaeological features are present then the locations of the features will be accurately fixed using an EDM/Total Station.
- 7.3 Recording during the watching brief will follow that detailed in Section 8.

DELAYS TO THE DEVELOPMENT SCHEDULE

- 7.4 All earth-moving machinery must be fitted with a toothless bucket and operated at an appropriate speed to allow the archaeologist to recognise, record and retrieve any archaeological deposits and material. A toothed bucket and/or concrete breaker may only be used where absolutely necessary to remove hard surfaces and other obstructions, and this must be agreed in advance with the on-site archaeologist.
- 7.5 It is not intended that the archaeological monitoring should unduly delay site works. However, the archaeologist(s) on site should be given the opportunity to observe, clean, assess and, where appropriate hand excavate, sample and record any exposed features and finds. In order to fulfil the requirements of this WSI, it may be necessary to halt the earth-moving activity to enable the archaeology to be recorded properly. **If significant archaeological remains are identified within the remediation excavations for the new garden areas sufficient time must be allowed for recording and excavation as detailed in Section 8.**
- 7.6 Plant or excavators shall not be operated in the immediate vicinity of archaeological remains until the remains have been recorded and the archaeologist on site has given explicit permission for operations to recommence at that location.

8 RECORDING METHODOLOGY

- 8.1 Unique context numbers will only be assigned if artefacts are retrieved, or stratigraphic relationships between archaeological deposits are discernable. In archaeologically 'sterile' areas, soil layers will be described, but no context numbers will be assigned. Where assigned, each context will be described in full on a pro forma context record sheet in accordance with the accepted context record conventions.
- 8.2 For built structures, the record will include details of stone/brick dimensions and type (handmade/machine-made, plain/frogged, toolmarks etc), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins) as is visible in areas exposed by the groundworks.
- 8.3 Archaeological deposits will be planned at a basic scale of 1:50, with individual features requiring greater detail being planned at a scale of 1:20. Larger scales will be utilised as

appropriate. Cross-sections of features will be drawn to a basic scale of 1:10 or 1:20 depending on the size of the feature. All drawings will be related to Ordnance Datum. Where it aids interpretation, structural remains will also be recorded in elevation. All drawings will be drawn on inert materials. All drawings will adhere to accepted drawing conventions.

- 8.4 Photographs of archaeological deposits and features will be taken. This will include general views of entire features and of details such as sections as considered necessary. The photographic register will comprise 35mm format black and white prints. Digital photography and/or 35mm colour slides may be used in addition, but will not form the primary site archive. All site photography will adhere to accepted photographic record guidelines.
- 8.5 Areas which are inaccessible (e.g. for health and safety reasons) will be recorded as thoroughly as possible within the site constraints. In these instances, recording may be entirely photographic, with sketch drawings only.
- 8.6 All finds will be collected and handled following the guidance set out in the IfA guidance for archaeological materials. The upcast spoil from the excavations will be inspected and monitored by the archaeologist on site. All stratified pottery and a representative sample of unstratified wares will be retained; all pottery of post-medieval or earlier date will be retained if stratified or unstratified. Finds of particular interest or fragility will be retrieved as Small Finds, and located on plans. Other finds, finds within the topsoil, and dense/discrete deposits of finds will be collected as Bulk Finds, from discrete contexts, bagged by material type. Any dense/discrete deposits will have their limits defined on the appropriate plan.
- 8.7 All artefacts and ecofacts will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication *First Aid for Finds*, and recording systems must be compatible with the recipient museum. All finds that fall within the purview of the Treasure Act (1996) will be reported to HM Coroner according to the procedures outlined in the Act, after discussion with the client and the local authority.
- 8.8 Samples will be taken from securely stratified archaeological contexts; features that are clearly modern or of little archaeological value (field drains, furrows etc); or those that evidence a high degree of residuality will not be sampled. Sampling will be carried out in consultation with ArcHeritage specialists and the English Heritage Regional Science Advisor, as appropriate (e.g. dendrochronology, soil micromorphology, monolith samples, C14, etc.). Samples will be taken for scientific dating where necessary for the development of subsequent mitigation strategies. Material removed from site will be stored in appropriate controlled environments. All sampling for environmental and biological material will take place in accordance with the recommendations contained in the papers *Environmental Archaeology and Archaeological Evaluations*, Association for Environmental Archaeology (1995) and *Environmental Archaeology: A Guide to the Theory and Practice of Methods from Sampling and Recovery to Post-Excavation* 2nd Edition (English Heritage 2011).
- 8.9 The sampling regime will include samples of the four types of deposit sample described below:
 - Bulk-sieved Sample (BS). Sample size will depend upon the context/feature size, but should be up to 40- 60 litres in size (if the context size allows). They are taken for the recovery of charcoal, burnt seeds, bone and artefacts. The samples will be processed (flotation) on site where possible with 1mm and 500micron sieves on a rack to collect the carbonised washover. The retents and flots will then be dried,

sorted and assessed to advise the potential for further analysis.

- General Biological Sample (GBA): These are only taken if a deposit is waterlogged. A 10 litre sample size will be used (if the context size allows). These samples will be processed in the laboratory, to recover macrofossils and microscopic remains such as pollen and insects.
 - Column monolith: Kubiena tin samples may be taken for soils and pollen analysis and to determine soil accumulation processes.
 - Spot samples: these samples are taken as required. they may be contexts or material not suited to sieving, such as caches of seeds, pieces of eggshell or any specific finds of organic material. They may also be specialist samples (e.g. charcoal for radiocarbon dating).
- 8.10 Other samples will be taken, as appropriate, in consultation with ArchHeritage specialists and the English Heritage Regional Science Advisor, as appropriate (e.g. dendrochronology, soil micromorphology, monolith samples, C14, etc.). Samples will be taken for scientific dating where necessary for the development of subsequent mitigation strategies. Material removed from site will be stored in appropriate controlled environments.
- 8.11 In the event of human remains being discovered during the evaluation these will be left *in-situ*, covered and protected, in the first instance. The removal of human remains will only take place in compliance with environmental health regulations and following discussions with, and with the approval of, the Ministry of Justice. If human remains are identified, the Ministry of Justice and curator will be informed immediately. An osteoarchaeologist will be available to give advice on site.
- If **disarticulated** remains are encountered, these will be identified and quantified on site. If trenches are being immediately backfilled, the remains will be left in the ground. If the excavations will remain open for any length of time, disarticulated remains will be removed and boxed, for immediate reburial by the Church.
 - If **articulated** remains are encountered, these will be excavated in accordance with recognised guidelines (see 6.12) and retained for assessment.
 - Any grave goods or coffin furniture will be retained for further assessment.
- 8.12 Where a licence is issued, all human skeletal remains must be properly removed in accordance with the terms of that licence. Where a licence is not issued, the treatment of human remains will be in accordance with the requirements of Civil Law, IfA Technical Paper 13 (1993) and English Heritage guidance (2005).

9 REPORT & ARCHIVE PREPARATION

- 9.1 Within three months of completion of the groundworks, a report will be prepared to include the following:
- a) A non-technical summary of the results of the work.
 - b) An introduction which will include the planning reference number, grid reference and dates when the fieldwork took place.
 - c) An account of the methodology and results of the operation, describing structural data, associated finds and environmental data.
 - d) A selection of photographs and drawings, including an overall plan of the site accurately identifying the areas monitored by the watching brief.

- e) Specialist artefact and environmental reports as necessary to include recommendations for retention and discard of samples and materials
 - f) Details of archive location and destination (with accession number, where known), together with a catalogue of what is contained in that archive.
 - g) A copy of the key OASIS form details
 - h) Copies of the Brief and WSI
 - i) A CDROM with digital copies of all photographs from the building recording exercise and other photographs as appropriate will be appended to the report
- 9.2 Copies of the report will be submitted to the commissioning body and the HER (also in PDF format).
- 9.3 The site archive will be deposited with Buxton Museum under the accession number DERSB: 2013.29. The requirements for archive preparation and deposition will be addressed and undertaken in a manner agreed with the recipient museum. The archive will be deposited within 6 months of completion of the report unless retained at York Archaeological Trust. A copy of the archive notification form will be forwarded to the development control archaeologist for Derbyshire County Council on deposition of the archive.
- 9.4 Provision for the publication of results in the Derbyshire Archaeological Journal will be made.
- 9.5 The owner of the Intellectual Property Rights (IPR) in the information and documentation arising from the work, would grant a licence to the County Council and the museum accepting the archive to use such documentation for their statutory functions and provide copies to third parties as an incidental to such functions. Under the Environmental Information Regulations (EIR), such documentation is required to be made available to enquirers if it meets the test of public interest. Any information disclosure issues would be resolved between the client and the archaeological contractor before completion of the work. EIR requirements do not affect IPR.

10 HEALTH AND SAFETY

- 10.1 Health and safety issues will take priority over archaeological matters and all archaeologists will comply with relevant Health and Safety Legislation.
- 10.2 A Risk Assessment will be prepared prior to the start of site works.

11 TIMETABLE & STAFFING

- 11.1 The timetable for the archaeological works is to be confirmed. The programme for any watching brief will be dependent on the programme for ground works.
- 11.2 Specialist staff available for this work are as follows:
- Head of Artefact Research - Dr Ailsa Mainman
 - Human Remains - Malin Holst (York Osteoarchaeology Ltd) & Rebecca Storm (University of Bradford)
 - Palaeoenvironmental remains – Dr Jennifer Miller (Dickson Laboratory for Bio-Archaeology)
 - Head of Curatorial Services - Christine McDonnell
 - Finds Researcher - Nicky Rogers

- Medieval Pottery Researcher - Anne Jenner
- Finds Officers - Geoffrey Krause & Rachel Cubitt
- Archaeometallurgy & Industrial Residues – Dr Rod Mackenzie & Dr Roger Doonan
- Conservation – Ian Panter

12 MONITORING OF ARCHAEOLOGICAL FIELDWORK

- 12.1 As a minimum requirement, the Development Control Archaeologist for Derbyshire County Council will be given a minimum of one week's notice of work commencing on site, and will be afforded the opportunity to visit the site during and prior to completion of the on-site works so that the general stratigraphy of the site can be assessed. The name and contact telephone number of the archaeologist on site will be provided to the Development Control Archaeologist for Derbyshire County Council; a cv of the onsite archaeologist will be provided on request. ArchHeritage will notify the Development Control Archaeologist for Derbyshire County Council of any discoveries of archaeological significance so that site visits can be made, as necessary. Any changes to this agreed WSI will only be made in consultation with the Development Control Archaeologist for Derbyshire County Council.
- 12.2 If significant archaeological deposits are encountered the Development Control Archaeologist for Derbyshire County Council will be contact to arrange a convenient date and time for a site visit.

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14 KEY REFERENCES

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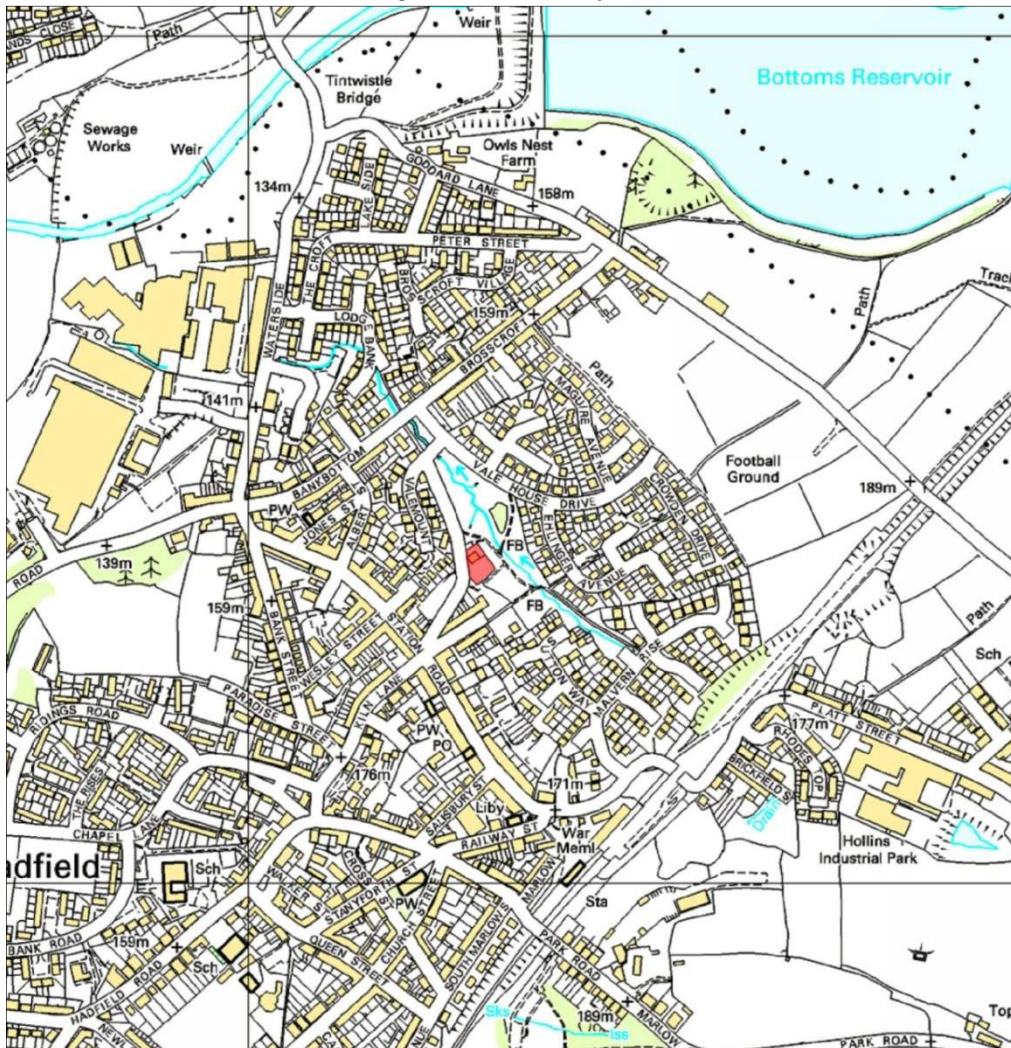
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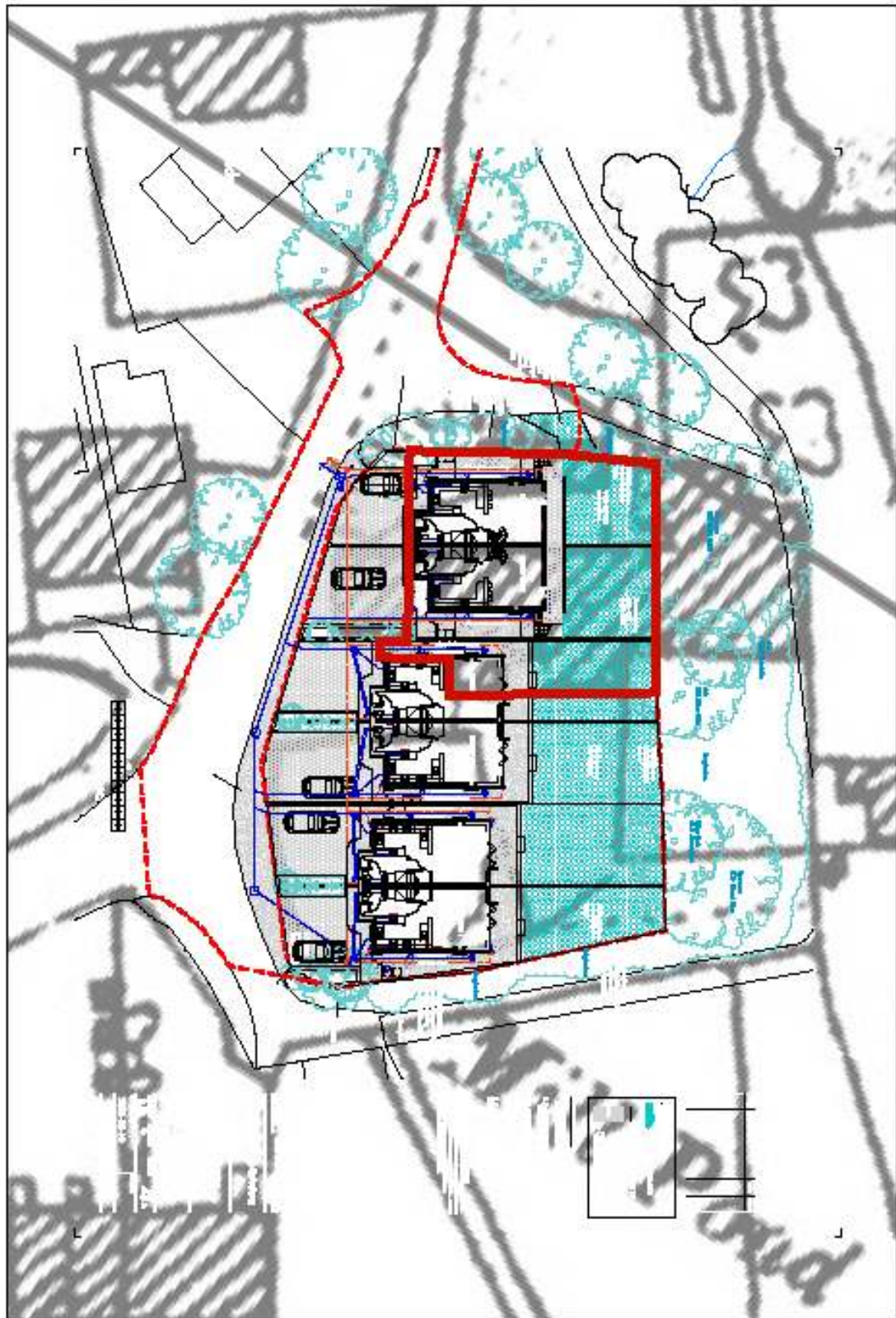
See also the **HELM** website for a full list of English Heritage Guidance documents.

<http://www.helm.org.uk/server/show/nav.19701>

Figure 1 Site location plan



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— Watching Brief Area



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Figure 1: Proposed watching brief area



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