



# Harton Quays, South Shields Written Scheme of Investigation – Archaeological Trial Trench Evaluation

Client: Ryder Architecture Ltd

**Local Planning Authority:** South Tyneside Council

**Planning Reference:** ST/1070/20/LAA

**NGR:** NZ 3594 6691

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## 1.0 Introduction

- 1.1 Ryder Architecture have applied for planning permission (ST/1070/20/LAA) for a commercial office development with landscaping at Harton Quay, South Shields (NGR NZ 3594 6691, see Figure 1). Consultation with the Tyne & Wear Museums Service (TWMS), as advisors to the council, has confirmed the requirement for a programme of archaeological evaluation to inform the decision-making process and allow the preparation, if appropriate, of a mitigation strategy.
- 1.2 This Written Scheme of Investigation (WSI) has been prepared by Prospect Archaeology Ltd and details the staffing, methodology and timetable of the programme of works for trial trenching. It complies with the Chartered Institute for Archaeologists' (CIfA) *Standard and guidance for archaeological field evaluation* (CIfA 2014).

## 2.0 Site Location and Description

### Geology

- 2.1.1 The site is located in an area of Pennine Middle Coal Measures, locally overlain with Glaciolacustrine Devensian clay and silt (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

### Topography and setting

- 2.1.2 The development site is located between the streets known as Mill Dam and Harton Quay. It is currently mainly under grass with the lower section of a former chimney towards the western boundary at the southern end, an electricity sub-station on the western boundary centrally and brick walls to the eastern boundary with Mill Dam, partially supported by concrete blocks and steel props. Grassed earth bunds surround the northern, western and southern sides. The site is irregularly shaped, centred on NZ 3594 6691. It is bounded to the north and west by Harton Quay and to the south and east by Mill Dam. The Coronation Street roundabout is located on at the north-east corner. The ground slopes from c. 10.5m aOD in the northeast down to c. 5.5m aOD in the southwest. A grassy mound lies to the east of the substation. Concrete blocks prevent vehicular access and a number of rocks have been piled up adjacent to the entrance and the substation.

## 3.0 Previous Archaeological Work

- 3.1 The site has been subject desk-based assessment (Prospect Archaeology 2020) and monitoring of GI test pits (Pre-Construct Archaeology 2020). A summary of the archaeological background follows – for a full description please refer to these two reports.

South Shields was the site of a Roman fort (called *Arbeia*), established c. 160AD, and civilian settlement, which were located to the north-east on the headland known as The Lawe. The Roman fort is part of the 'Frontiers of the Roman Empire (Hadrian's Wall)' World Heritage Site and as such is of international importance. It is likely that a port existed on the riverbank, associated with the Roman settlement and a large cemetery of the same period is known to have extended to the east. Excavations within the area of the fort have revealed human

activity dating back to the Mesolithic and the headland appears to have attracted settled communities from the Neolithic onwards.

3.2 The Roman fort continued to be occupied at least until the 5<sup>th</sup> century and probably beyond. The documented foundation of a religious house by Hild in the 7<sup>th</sup> century, believed to be in the vicinity of the later St Hilda's Church, would have created a new settlement focus at that time. St Hilda's Church is located approximately 130m north-east of the Site and could indicate the potential for early medieval activity in the immediate environs. The known boundary of the St Hilda's churchyard extends into the Site although there has been considerable industrial use of the Site since the church yard went out of use that may have removed or considerably truncated any human remains. The Site lies within the area of the medieval town, although the precise form of any development is unknown. Positioned adjacent to the river and the Mill Dam, it is likely to have provided both residential and mercantile space for those engaged in fishing, trading and salt panning. The medieval Mill Dam is believed to have occupied the southern part of the Site. It could conceivably been the site of the medieval mill.

3.3 The 18<sup>th</sup> century Cookson's Glassworks was primarily positioned to the west of this Site, but the 19<sup>th</sup> century saw two glass ovens constructed in the northern part of the site. Other elements of the glassworks may also survive. Some truncation of deposits is likely as a result of the 20<sup>th</sup> century development of the Harton Colliery Staiths and their rail lines.

3.4 The geotechnical test pits revealed evidence of floor surfaces and standing walls. These are believed to be the remains of the glassworks. No human remains were recorded although no test pits were excavated within the area of the former cemetery. Made ground was recorded in two boreholes in the northern part of the site to 5m depth, overlying natural sands. No archaeological differentiation of the made-ground deposits recorded in these boreholes is possible.

## 4.0 Scope of Works

4.1 The proposed development is for a new office building, with basement car parking, in the northern part of the site and landscaping to the south. As such, only the northern area will suffer impacts to potentially archaeological levels. Evaluation is therefore limited to the footprint of the new building.

4.2 Two trenches will be excavated, each measuring 6m x 10m to allow stepping / banking to achieve safe excavations at depth. Should the depth of the deposits warrant it, there may be a need to widen the trenches to reach lower levels.

## 5.0 Aims and Objectives

5.1 The purpose of the intrusive evaluation is to establish the presence/absence, nature, date, depth, quality of survival and significance of any archaeological deposits as well as identify any further features which may be impacted and require mitigation. A mitigation strategy will be developed in consultation with TWMS.

- 5.2 Specifically, the work will aim to assess the potential for archaeological survival of the glassworks, post-medieval and/or medieval burials, and medieval occupation.

## Trench Rationale

- 5.3 The trenches have been positioned to avoid known services. Both trenches are positioned to assess the potential for structural remains of the glassworks to survive. In addition, Trench 2 is located within the area of the former cemetery.

## 6.0 Method

- 6.1 Fieldwork will be undertaken by a team led by a Member of the Chartered Institute for Archaeologists or a Registered Archaeological Organisation. All groundworks will be supervised by an appropriately experienced archaeologist. It is proposed that in the first instance there will be one archaeologist present on Site to monitor the trench excavations. When the first archaeological horizon is reached in the first trench excavated, an additional staff member will attend site to commence cleaning and hand excavation.

- 6.2 Initial excavation will be by a 360-degree tracked excavator or similar back-acter using a toothless ditching bucket under continuous archaeological supervision. Due to the anticipated depth of deposits, sides will be battered and/or stepped to allow safe access to lower levels. The supervising archaeologist will determine the safest method of excavation but should contact Prospect Archaeology immediately if excavation is considered unsafe due to trench stability at depth. Machine excavation will continue only until significant archaeological deposits are reached: all features encountered will be plotted and then excavated according to the sampling strategy. Should no archaeological remains be encountered at the maximum safe depth of stepped / battered excavation, consideration will be given to excavating a sondage in order to establish whether any archaeology survives above natural sands.

- 6.3 A contingency of 10% of trenching costs has been allowed for additional trenching in order to clarify specific issues. The contingency will only be activated with express permission of the client.

## 7.0 Excavation and Recording

- 7.1 Following the identification of archaeological deposits, all further excavation will be by hand, by experienced/qualified archaeologists to natural undisturbed deposits. Sufficient of each feature will be excavated to determine its date and function.

- 7.2 Linear features will be sampled a minimum of 10% along their length (each sample section to be not less than 1m), or a minimum of a 1m sample section, if the feature is less than 5m long. Junctions and terminals will be targeted with regard to the objectives in Section 5.

- 7.3 All small discrete features (postholes, stakeholes) will be fully excavated, or a sample if large numbers are encountered. Larger features will be half-sectioned.

- 7.4 Particular attention will be paid to understanding the nature of industrial/structural features including, but not limited to, pits, hearths, walls, floors, furnace and machine bases. These will be sufficiently excavated to establish their form, phasing and construction techniques to allow an assessment of their significance to be made and allow appropriate mitigation strategies to be devised.
- 7.5 If features / deposits are encountered which the archaeological contactor feels are too massive to be excavated by hand, Prospect Archaeology and TWMS will be informed and a strategy for future treatment agreed.
- 7.6 Large objects (e.g. worked stone, pipes etc) that cannot be lifted by one person and homogenous stretches of brick wall should be left *in situ* except where they are believed to obscure significant archaeological deposits. Removal by machine may be appropriate and this should be discussed with Prospect Archaeology and TWMS and only after full recording and sampling *in situ*, in accordance with an agreed strategy.
- 7.7 A drawn record will be maintained, comprising a site plan showing the locations of the areas of excavation within the Site, trench plans, feature plans and section drawings as appropriate – as a minimum, at least one representative long section of each trench will be drawn. These will be produced at appropriate scales, normally 1:100, 1:50, 1:20 and/or 1:10, as the complexity of the drawing requires. Detailed plans will be made of key features and section or elevation drawings provided of cut features and upstanding structures as appropriate. All drawings will be referenced to the overall site plan.
- 7.8 A photographic record of the project and of each feature / deposit will be made and photographs illustrating the relationships between groups of features and general progress will also be taken. Digital photographs should be taken using a high-resolution DSLR camera with sensors exceeding 10 Mega Pixels, producing either TIFF files or RAW files which must be converted to TIFF before archive deposition. The photographs should be recorded in an index recording the image number, subject, any scales used, direction facing, date the picture was taken and who took it.
- 7.9 All photographs should be in focus, with an appropriate use of depth of field; they should be adequately exposed in good natural light, or where necessary well-lit by artificial means (not by camera-triggered electronic flash). Procedures will follow the guidance offered in The Historic England (2015) ‘Digital Image Capture and File Storage: Guidelines for Best Practice’ document (<https://historicengland.org.uk/images-books/publications/digital-image-capture-and-file-storage/>).
- 7.10 All context, drawing and photographic registers will be cross-referenced.

- 7.11 Finds will be bagged and labelled according to their context of origin. All finds will be treated in accordance with the recommendations contained in First Aid for Finds (Watkinson & Neale 1998, 3rd edition). Advice will be taken on any finds requiring immediate specialist treatment.

### Soil Sampling

- 7.12 Soil samples will only be taken from deposits that can be securely dated and/or placed in the Site's stratigraphic sequence. Samples will be collected in accordance with a strategy which recognises the aims and objectives of the project – see section 5 – and provision will be made for on-site advice from a relevant specialist. The strategy will take note of the industrial nature of the site and as part of the strategy, sampling will be undertaken of industrial residues for examination, in accordance with the advice and the guidance offered in Historic England guidance documents: English Heritage 2011, Historic England 2015 and Historic England 2018a. Samples for environmental purposes will be no less than 40 litres (where possible). If samples are required from discrete features that are not proposed for 100% excavation, they will be taken from the unexcavated 50%. Sampling of stake-holes or small features will require the excavation of 100% of the feature.
- 7.13 Should waterlogged remains be encountered they will be treated in accordance with Waterlogged Wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood, 3rd edition, (English Heritage) Historic England 2010.

### Scientific Dating

- 7.14 Opportunities for scientific dating will be identified as appropriate and discussed with the curator and/or the Science Advisor.

### Industrial Remains

- 7.15 The potential for industrial remains is recognised. The investigation of industrial structures will be undertaken in accordance with a strategy formulated with specialist advice.

### Human Remains

- 7.16 Should human remains be encountered the consultant, curator and coroner should be informed. Removal of human remains will only take place in accordance with a Ministry of Justice licence (which may be required under the 1857 Burials Act) and in accordance with the guidance referenced in Historic England 2018b and the guidance issued by the Advisory Panel on the Archaeology of Burials in England.

### Treasure

- 7.17 The possibility of encountering items of treasure, as defined in the Treasure Act (1996), is noted and provision will be made for informing the necessary authorities, and providing appropriate security measures, should the need arise.

## 8.0 Post-excavation processing

- 8.1 Finds and records will be returned to the contracted unit for processing. Records will be checked and entered into a computerised database. All finds will be treated in accordance with current HE

best practice, including 'Investigative Conservation'. Finds will be cleaned (where appropriate) and marked and boxed for transfer to the relevant specialists according to accepted principles and in line with appropriate period/ material guidelines. Environmental samples will be washed and assessed by an environmental archaeologist.

- 8.2 Where material suitable for scientific dating is recovered, sufficient dating will be undertaken to meet the aims of the project.
- 8.3 For all categories of material recovered, including finds, palaeo-environmental, industrial and other specialist samples, an assessment by an appropriately experienced specialist will be undertaken.
- 8.4 Environmental samples will be processed and sorted, and any artefacts recovered provided to the appropriate specialist(s) to be considered alongside the hand-recovered material. Basic stratigraphic information will be supplied to the project specialists.
- 8.5 Where assessment has identified the need for further analysis and no further mitigation work has been secured within 12 months of the completion of the evaluation reporting (or as agreed with SYAS), this will be completed drawing upon the contingency allowed, representing 10% of post-excavation costs.
- 8.6 All ferrous objects and a selection of non-ferrous objects (including all coins), will be x-radiographed in accordance with the guidance offered in Historic England 2006.

## 9.0 Reporting

9.1 A report will be produced within 4 weeks of the completion of fieldwork and provided digitally (pdf format) to Prospect Archaeology for distribution.

9.2 The report will contain the following sections:

- A brief introduction, describing the scope, circumstances and methods of the work
- Aims and objectives, including specific research objectives
- A stratigraphic descriptive account of the results from each trench
- Discussion of the results and their significance in relation to local, regional and national sites, as appropriate
- Conclusions
- A brief description of the range of finds including spot dates as appropriate.
- A detailed context list and an index to the archive
- Illustrations and plates as appropriate. Illustrations to be included are: a detailed location map, a detailed site plan showing all trenches, all trench plans and sections and detailed plans and sections of features, select artefact images; an overall site plan showing all (phased) archaeological features will also be included.
- References



## 10.0 Publication

- 10.1 If required, formal publication is expected to take place only following a mitigation phase of fieldwork; should such work not take place within a reasonable timeframe, e.g. 12 months from completion of evaluation reporting (or as agreed with TWMS), then the need for and scope of a formal publication of the results will be discussed and agreed with Prospect Archaeology, the client and TWMS.

## 11.0 Monitoring

- 11.1 TWMS will be informed of the proposed start date and will be kept informed of progress throughout the field and post-excavation work. A member of Prospect Archaeology staff will monitor the excavation and post-excavation work on behalf of the client. Site monitoring visits will be coordinated by Prospect Archaeology.

## 12.0 Health and Safety

- 12.1 All Site work will be carried out in accordance with the relevant current Health and Safety legislation. A copy of the Health and Safety Document will be available on request and a Risk Assessment will be prepared prior to commencement of work on Site.

## 13.0 Insurance

- 13.1 PA and its sub-contractors are fully covered by Employers and Public Liability and Professional Indemnity insurances, copies of which are available for inspection on request.

## 14.0 Archiving

- 14.1 The Site archive will be prepared in accordance with the UKIC's document *Guidelines for the Preparation of Excavation Archives for Long Term Storage* and the ClfA's *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives 2014*.
- 14.2 Ultimately the ordered and checked archive, along with artefacts, ecofacts and relevant documents will be combined with the final site archive and deposited with Museum of Sheffield. The museum will be contacted prior to the commencement of fieldwork, by submission of a completed Project Initiation Form. Thereafter the museum will be involved in discussions with regard to selection and retention of archive material prior to archive deposition, through completion and submission of appropriate forms. The archive will be prepared in accord with Museums Sheffield policy on archaeological archive deposition<sup>1</sup>. This excludes finds that are subject to the Treasure Act 1996 (and later amendments), the deposition of which will be determined separately. A budget to cover the museum's deposition charge has been allowed for in the project costs to the client. The Museum will be contacted for an accession number by the contractor at the appropriate time. On completion, confirmation of deposition will be supplied to SYAS.
- 14.3 An electronic copy of the archive will be deposited with ADS

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## 15.0 Programme & Staffing

15.1 Fieldwork will be undertaken by a team led by a Member of the Chartered Institute for Archaeologists or a Registered Archaeological Organisation. A full list of specialists to be used will be provided prior to fieldwork commencing, for discussion and agreement with Prospect Archaeology and TWMS. Other specialists found to be necessary during the life of the project will be discussed and agreed on a case by case basis.

15.2 It is anticipated that each trench will take about 5 days to complete.

## 16.0 Publicity

16.1 Illustrated notices will be displayed around the edge of the site, explaining what work is in progress and why the work is being carried out, to be updated during the life of the project - TEXT to be reproduced as minimum 16 POINT FONT.

## 17.0 References

Historic England (2006) *Guidelines on the X-radiography of archaeological metalwork*

English Heritage 2011 (second edition) *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*. Centre for Archaeology Guidelines

Historic England, 2015 *Archaeometallurgy Guidelines for Best Practice*

Historic England, 2018a *Science for Historic Industries Guidelines for the Investigation of 17th- to 19th-century Industries*

Historic England, 2018b *The Role of the Human Osteologist in an Archaeological Fieldwork Project*

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## 18.0 Figures

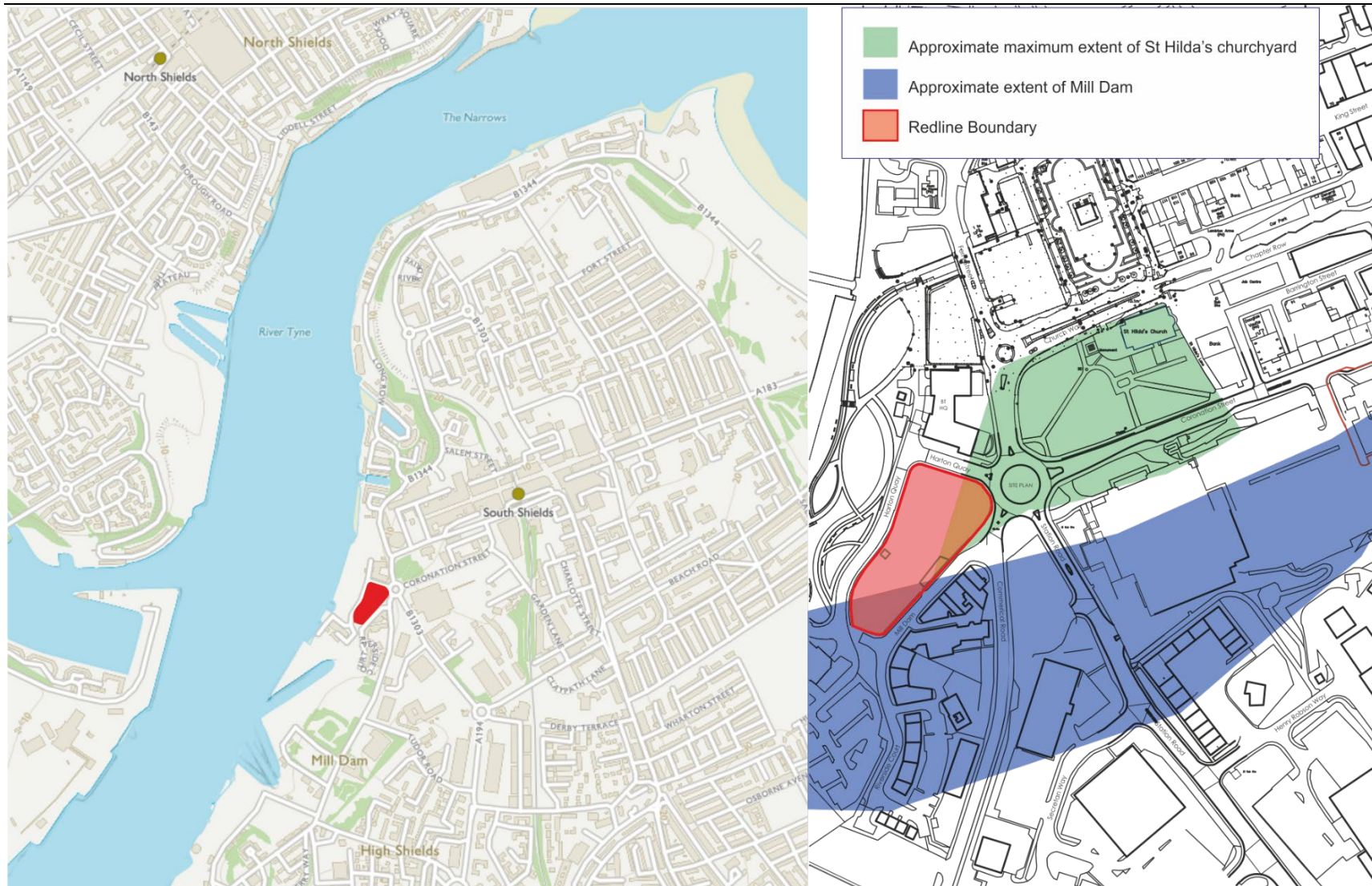


Figure 1: Site Location and key historic landscape features

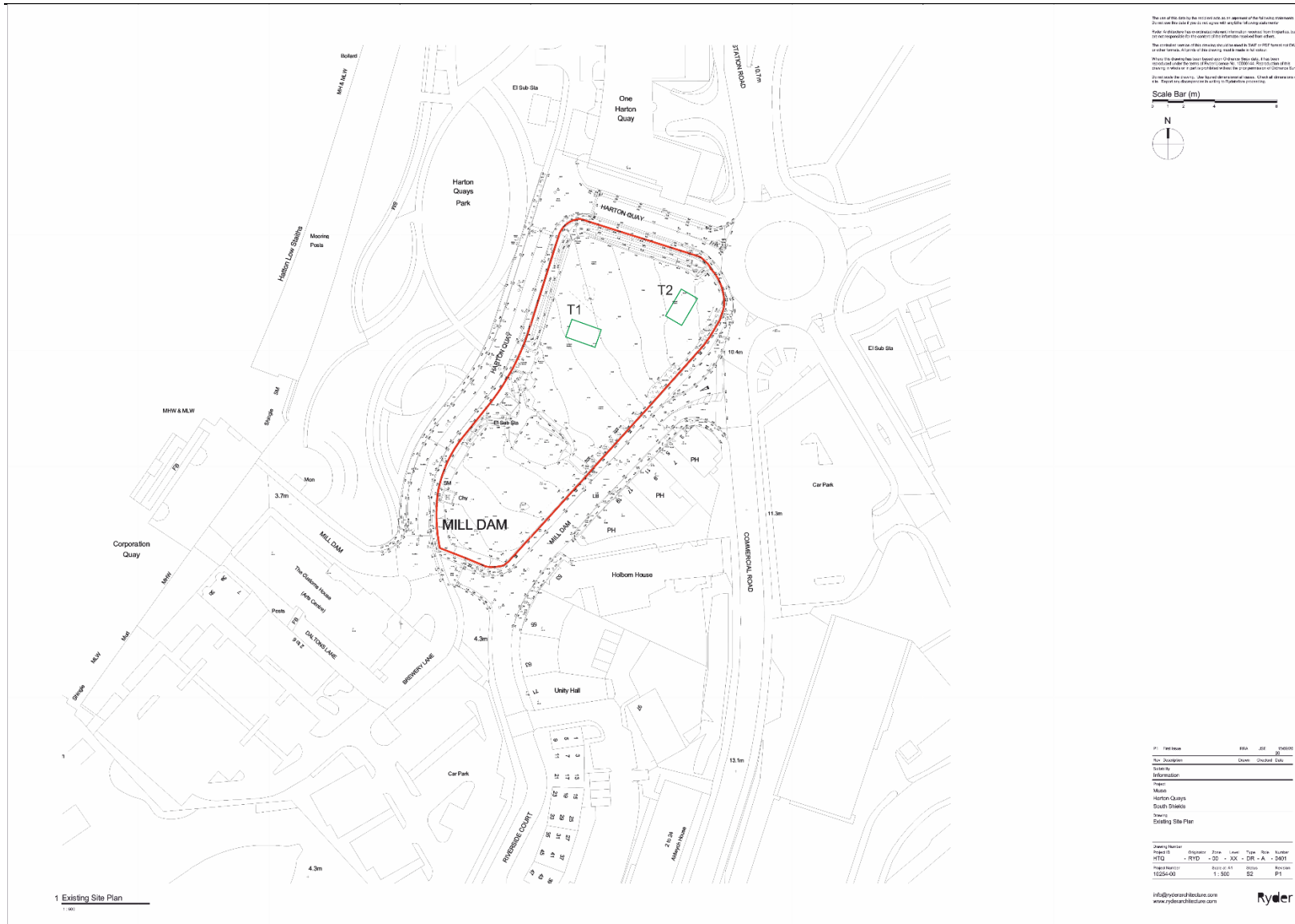


Figure 2: Trench layout