



## Habitat Enhancement Project, Higham Marshes, North of Higham Village, Hoo Peninsula, Kent

### Archaeological Watching Brief Written Scheme of Investigation

Project Code: WB HM 22  
Planning Ref: pre-planning  
NGR: TQ 70711 74898 (centred)

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November 2022

#### Document Record

This report has been issued and amended as follows:

| Version | Approved by    | Position        | Comment | Date     |
|---------|----------------|-----------------|---------|----------|
| 02      | Andy Linklater | Project Manager |         | 01/11/22 |

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# **A WRITTEN SCHEME OF INVESTIGATION (WSI) FOR AN ARCHAEOLOGICAL WATCHING BRIEF AT HIGHAM MARSHES, NORTH OF HIGHAM VILLAGE, HOO PENINSULA, KENT**

## **1. Introduction**

- 1.1 This specification is concerned with an archaeological watching brief to be maintained at Higham Marshes, north of Higham village, Hoo Peninsula, Kent (NGR: TQ 70711 74898 centred; Figs 1 and 2).
- 1.2 Development proposals for the site are at pre-planning stage, but are believed to be similar to those for a comparable wetland scheme at nearby Cooling and Cow Marshes which specifies '*wetland habitat restoration/enhancement comprising of engineering works to enhance the in-field topography and disconnect from the existing landscape drainage system*' under Medway Council planning reference MC/22/1079.
- 1.3 The proposed development at Higham Marshes is located on land that holds known archaeological potential. In view of intrusive groundworks within the Higham Marshes, the client (the RSPB) has requested the production of a Written Scheme of Investigation (WSI) for an archaeological watching brief as part of pre-planning proposals.
- 1.4 If significant remains are revealed during the watching brief, further archaeological measures may be required to secure mitigation on the site.
- 1.5 The watching brief should be maintained throughout the programme of ground excavation works. The **archaeological contractor** will confirm the extent of proposed ground excavations in advance with the site developer and inform the KCC Senior Archaeological Officer that arrangements are in place for appropriate monitoring.

## **2. Archaeological Potential**

- 2.1 The archaeological potential is based on the proximity of archaeological remains and historical sites presently recorded in the Kent Historic Environment Record (KHER) which lie within, or close to the boundaries of the site. The archaeological contractor will consult fully the KHER for further background information in relation to the proposed development.
- 2.2 The application site lies in an area of archaeological potential relating to past landscapes, including possible prehistoric, Roman and medieval sites, as evidenced by known archaeological find-spots, sites and landscape features incorporated into and overlain by the present surrounding historic landscape. The site is located within a landscape of recorded archaeological potential, mainly comprising possible salterns or salt-working mounds, of likely medieval (although possibly earlier) date. Listed below are the principal discoveries within the surrounding landscape as included within the KHER.

- 2.3 The earliest evidence of archaeological activity within and around the Higham Marsh site comprises a Mesolithic antler pick found in Higham Marshes (KHER TQ77 NW1009), within the western extent of the site.
- 2.4 Barrow Hill (KHER TQ77 SW1) is an irregular-shaped turf-covered mound, and reportedly a naturally weathered outlier of Thanet Sand, although aerial photographs appear to show a ditch around part of this feature. There is no trace of other mounds in the Higham Marshes. The KHER reports that a crouched inhumation burial with Porosphaera beads may have been found here. The mound was reputedly excavated but no report mentioning the mound was produced. The ditch around part of the feature may have been cut for drainage purposes and similar shallow ditches exist elsewhere on the marshes. The mound survives to an approximate height of 3m with a central truncation and other slight hollows in its sides. Barrow Hill is located immediately south of the proposed development scheme.
- 2.5 Higham Marshes have been known to have considerable potential for Roman archaeology for many years. This potential is thought to mainly relate to the use of the area for pottery kilns and salt-working activities in the Roman period. Various scattered find-spots of late Iron Age and Romano-British pottery sherds have been identified along the foreshore by Higham Marshes (KHER TQ77 NW1270, TQ77 NW1273 and TQ77 NW1139). They include an assemblage of pottery (including rim sherds) and bone (some butchered) found at the base of a saltmarsh cliff. These finds are possibly related to Roman occupation to the west (KHER TQ77 NW20) where a concentration of Roman briquetage, tile and late second-century pottery sherds were recovered. The finds may derive from the possible site of a Roman villa.
- 2.6 This area of the Hoo Peninsula is dominated by probable salterns; earthworks and soil marks associated with salt production that were common in coastal and estuarine localities. Although salt-working activities may have been present in the local area since the late prehistoric and Roman periods, salterns were more commonplace in the medieval period and include a range of features connected with the collection and evaporation processes, of which the most visually distinctive are the oval or kidney-shaped middens of waste material which may cover areas of 2ha or more. The principal features of a medieval saltern are the remains of a series of low platforms, pits or tanks dug into the marsh clay and adjacent mounds.
- 2.7 Possible salt mounds with associated banks and likely evaporation channels have been recorded within proximity of the Higham Marsh site (KHER TQ67 SE1255 and TQ77 SW1000). More mounds have been recorded within nearby proximity to the site and across the marshland of the Hoo Peninsula.
- 2.8 Identified on a 1946 aerial photograph and located close to the northern boundary of the Higham Marsh site is a large circular ring-ditch or feature with a possible pit adjacent (KHER TQ77 NW1038). A linear feature (a possible ditch) is also apparent between the large circular ditched feature and the smaller pit. The circular feature could represent further possible evidence for salt working.

- 2.9 The remains of possible saltworks have been recorded, on aerial photographs, north-east of the centre of the site (KHER TQ77 NW1009), and two possible ring ditches, salterns or bomb craters have been recorded within the centre of the site (KHER TQ77 NW1268 and TQ77 NW1269). They appear on RAF aerial photographs from 1946 and are similar to that recorded as KHER TQ77 NW1038.
- 2.10 The possible site of Higham Blockhouse (KHER TQ77 NW149), a Tudor Thames defence, is located at the western tip of the site. As a small artillery blockhouse, it was built by Henry VIII in 1539 as part of his chain of coastal defences in response to the threat of foreign invasion. It was one of five blockhouses built along this stretch of the River Thames to defend the approach to London and the dockyards at Woolwich and Deptford; the others being at Tilbury, East Tilbury, Milton and Gravesend. It was decommissioned in 1553 and demolished in 1557-8. It was probably a D-shaped blockhouse similar to Gravesend and East Tilbury blockhouses. Nothing remains of the blockhouse and its precise location is not known although it may have stood on the west bank of Shorne Creek where it meets the River Thames. The remains of the blockhouse are shown on Robert Adam's 1588 map of the Thames Defences.
- 2.11 Other archaeological features of possible medieval or post-medieval date, within the Higham Marsh site, include a regular drainage pattern (KHER TQ77 SW1001) as visible on aerial photographs and satellite images of the site. The drainage feature is likely to represent elements of previous saltmarsh creek systems within the south-western part of the site. The sites of two former sheepfolds, of later post-medieval date, are located within the Higham Marsh site (KHER MKE83225 and MKE83226) and indicate previous agricultural use of this area of the Hoo Peninsula. In addition, the remains of an enclosure forming an area of grazing land behind the sea wall (KHER TQ77 NW1032) is located close to the northern boundary of the Higham Marsh site.
- 2.12 Features of post-medieval/modern date are located along the foreshore and mainly comprise remains of wooden stakes, beams and fence posts that are likely to relate to former enclosures and previous attempts to make firm platforms on marshland deposits (KHER TQ77 NW1142, TQ77 NW1141, TQ77 NW1138, TQ77 NW1137 and TQ77 NW1136).
- 2.13 Features sited around the northern perimeter of the Higham Marshes site include several Second World War pillboxes (KHER TQ77 NW1210, TQ77 NW126 and TQ77 NW151) and anti-invasion obstacles of six concrete blocks (KHER TQ77 NW1209), all located beyond the north-eastern edge of the site.
- 2.14 Further detailed information on the above is provided in the Kent Historic Environment Record (KHER) held and maintained at the County Historic Environment Record held in Invicta House, County Hall, Maidstone ME14 1XX.

### 3. Objective

3.1 The objectives of the archaeological watching brief are to contribute to heritage knowledge of the area through the recording of any archaeological remains exposed as a result of development works and excavations in connection with the groundworks.

3.2 Specific objectives include:

- Identification and clarification of the nature and extent of archaeological and historical activity of both the immediate and adjacent areas.
- Identification of features relating to the use of the site during all periods, specifically focusing on the use of the site during the prehistoric, Roman and medieval periods.

### 4. Proposed Groundworks

4.1 Proposed groundworks (see Fig 3) will involve intrusive excavations (by machine) for foot-drains and the construction of scrapes and rills across the site. Crossing stones will also be installed in appropriate areas. Other groundworks involve rotavating activities and the installation of culverts.

4.2 Proposed groundworks are expected to be shallow. Scrapes are shallow depressions with gently sloping edges which seasonally hold water. Foot-drains are long linear scrapes that can be used to hold surface water and also channel water to the centre of fields from perimeter ditches and feed other wet features. Supporting planning documents suggest no excavation will be deeper than 500mm below the present ground surface and works are designed to avoid recorded heritage assets where possible.

4.3 Generally, due to the size and nature of this type of development, groundworks are regarded as being limited in nature. Despite this, the archaeological/historical sensitive nature of the area would mean that any works associated with groundworks will be covered under this scheme of archaeological monitoring.

4.4 Copies of all pertinent plans are to be supplied to the appointed archaeological contractor who will clarify the full extent of the groundworks with the developer/on-site contractor prior to groundworks commencing.

### 5. Methodology

5.1 The archaeological contractor will monitor all groundworks associated with the development. **If archaeological remains are encountered, groundworks will cease to allow the remains to be investigated further.**

5.2 All stages of the project will be carried out in accordance with the procedures laid down in *Management of Research Projects in the Historic Environment* (MoRPHE) PPN3: *Archaeological Excavation* 2008. The monitoring archaeologist should confirm, before

site work begins, an agreement that provides for the full implementation of the approved programme of archaeological work, including provision for post-excavation analysis, publication and archiving of the site, has been signed by the relevant parties. The archaeological contractor will monitor the groundworks associated with the proposed scheme. If machinery is to be utilised for groundworks, all excavations should be undertaken using a flat bladed bucket and preferably in a single direction to enable archaeological remains to be recorded prior to disturbance from being driven over. If possible archaeological remains are encountered, groundworks will cease to allow the remains to be investigated further.

- 5.3 The archaeologist will inspect the surfaces revealed. Any archaeological structures or features revealed will be recorded in plan and section as appropriate according to Section 6 below. **The main contractor will allow the archaeological contractor reasonable time and resources to undertake any inspection or recording required.**
- 5.4 Further limited excavation may be necessary to clarify the extent and nature of some archaeological deposits. In this case, the archaeological contractor will undertake the excavation by hand.
- 5.5 If significant remains are unexpectedly encountered, the archaeological contractor will inform the KCC Senior Archaeological Officer and the developer immediately and further mitigation measures to safeguard the archaeological resource will be agreed.

## 6. Recording

- 6.1 All structures, deposits and finds are to be recorded according to accepted professional standards.
- 6.2 All recording points used should be accurately tied into the National Grid, preferably by theodolite, and located on to the 1:1250 map of the area.
- 6.3 Plans indicating the location of all archaeological features encountered are to be drawn at an appropriate scale, located on the site plan and levelled with respect to Ordnance Datum. An overall site plan is to be maintained at a scale of 1:100.
- 6.4 All plans are to be accurately tied into the site grid. All plans and sections are to be drawn on polyester based drafting film and clearly labelled.
- 6.5 All archaeological contexts are to be recorded individually on context record sheets. Furthermore, a general record of the work comprising a description and discussion of the archaeology is to be maintained as appropriate.
- 6.6 A full photographic record of the work is to be kept. The photographic record is to be regarded as part of the site archive. The archaeological contractor is to provide the Kent County Council's Archaeology Officer with a selection of photographic images which reflect the archaeological findings and investigations undertaken on this site.

- 6.7 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 nos. 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 Kent County Council's Archaeology Officer.
- 6.8 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 Developer will arrange for the archive to be deposited in a suitable museum or similar repository to be agreed with the Kent County Council's Archaeology Officer.

## **7. Reporting**

- 7.1 On completion of the archaeological watching brief the archaeological contractor will agree with the Kent County Council's Archaeology Officer, a programme for the reporting of the results of the work.
- 7.2 The reporting of the watching brief will be commensurate with the results but as a minimum must stand as a sufficiently detailed report on the archaeological monitoring to serve both future research and inform future planning decisions taken on the site.

### ***Report circulation***

- 7.3 Copies of all reports are to be provided to:

- the Client
- the Kent Historic Environment Record
- the project archives

- 7.4 When submitting the report to the Kent County Council's Archaeology Officer, the archaeological contractor should provide written confirmation that the report has been submitted to the above parties.
- 7.5 If the archaeological contractor is required, contractually, to only submit reports directly to the developer or their agent, the archaeological contractor must inform the Kent County Council's Archaeology Officer in writing that they have completed the report and to 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 7.3 above.

### ***Reporting of watching briefs with limited remains***

- 7.6 If the watching brief has resulted in limited archaeological remains being recorded then the archaeological contractor will complete the necessary post excavation works and produce a '**Watching Brief Report**' within 4 weeks of the completion of the watching brief (see sections 7.8 to 7.12 below).

### ***Reporting of watching briefs with significant archaeological remains***

7.7 If significant archaeological remains are recorded then within 3 months of completion of the watching brief the archaeological contractor will undertake an assessment of the results and produce a MAP2 '**Post-excavation Assessment Report**'. This report will set out a programme of post excavation works through to completion of a '**Full Report**' and '**Publication**' of the findings (see sections 7.13 to 7.17 below).

### ***Contents of a 'Watching Brief Summary Report'***

7.8 The archaeological contractor may determine the general style and format of the Watching Brief Summary Report but it must be completed in accordance with this specification. The report must provide sufficient information and assessment to enable the Local Planning Authority to stand as a detailed report on the archaeological fieldwork for future research and to inform on any future planning decisions for the site.

7.9 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.

7.10 The report is to include as a minimum:

An **Abstract** summarising the scope and results of the archaeological watching brief.

An **Introduction** including:

- the location of the site including National Grid Reference;
- an account of the background and circumstances of the work;
- a description of the development proposals, planning history and planning reference together with the planning condition (where appropriate);
- the scope and date of the fieldwork, the personnel involved and who commissioned it;
- the nature of potential impacts arising from the proposals;

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 should include a summary of the known Historic Environment Record entries generally within a 500m radius of the boundaries of the site.
- summary of any previous phases of archaeological investigation at the development site;
- any constraints on the archaeological monitoring.

The **Methodology** employed during the watching brief must be detailed in the report. Simply referring to the methodology outlined in the specification is not acceptable. Any aims and objectives specified in the specification should be included as should any further objectives identified during the course of the watching brief. The frequency of monitoring

visits, ground works observed, and any constraints experienced while carrying out the monitoring should be detailed.

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

A description of the **Results** of the archaeological monitoring. This description must include for each area observed:

- the dimensions of the area observed;
- the nature and depth of overburden soils encountered;
- description of all archaeological features and finds encountered in each area observed, their dimensions, states of preservation and interpretation;
- a description of the geological subsoil encountered across the site;
- heights related to Ordnance Datum should be provided for each feature and deposit.
- for complex remains a Harris Matrix diagram should be provided.

The **Finds** recovered during the course of the watching brief should be described, quantified and assessed by artefact type within the report. The report should also provide an indication of the potential of each category of artefact for further analysis and research. For each category of artefact, the report should 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 should also be detailed.

The report should include a table showing the contexts, classes and quantity of artefacts recovered, together with their date and interpretation.

The report must include an assessment of the **Environmental** potential of the site. Details should 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 should 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 should be described. Implications for future archive, conservation or discard of environmental samples or remains should be detailed.

The report should include, as appropriate, tables summarising environmental samples taken, together with the results of processing and assessment.

Any results from the watching brief involving the application of archaeological scientific techniques e.g. specialist dating should be included in the watching brief report.

An **Interpretation** of the archaeology of the site, including its location, extent, date, condition, significance and importance. This should 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.

A **Conclusion** with a summary of the archaeological results and how any archaeology observed relates to the development site. The effects of the development work on the archaeological remains should also be described. The report should highlight any areas of significant archaeological deposits that remain preserved within the development site. Particular note should be made of any variations in the depth of overburden covering any archaeological deposits revealed.

The report should include comments on the effectiveness of the methodology employed and the confidence of the results and interpretation.

Figures/illustrations – The report should 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 report should include the following figures:

- a site location plan tied into the Ordnance Survey at 1:1250 or in the case of larger sites at 1:2500. The plan should also include at least two National Grid points and show the site boundary;
- a plan at 1:100 or 1:200 showing the layout of the development groundworks clearly indicating the areas observed. The plan should show significant archaeological features, coloured by phases or period as related to the development site. Where possible, projection of archaeological features outside of the areas observed should be included on the plan. This plan should also include two National grid points;
- plans of the features revealed in each of the excavation areas 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 should also be indicated;
- relevant section drawings and soil trench profiles as appropriate;
- illustrations and/or photographs of significant finds should be included where appropriate.

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

### **7.11 Contents of a 'Watching Brief Assessment Report'**

The 'Archaeological Watching Brief Assessment Report' will follow the format and requirements detailed in 7.8 to 7.12 above.

In addition, the report will include an assessment of the results of the archaeological monitoring and their potential to address both the original research aims and objectives of the project and any further research objectives identified during the course of the on-site and post excavation works.

The report will detail any further analysis necessary on the project records, artefact and environmental assemblages to achieve the research potential identified in the assessment. A justification should be included for each analysis proposed.

The report will set out a timetable for completion of analysis and reporting, detailing all individual tasks to be completed, resources required, and the key personnel involved. The proposal should set out arrangements for monitoring of the post excavation process.

The report should include a synopsis of the proposed '**Full report**' and '**Publication**' and identify the likely destination of the publication.

## 8. General

8.1 The archaeological contractor is to allow the site records to be inspected and examined at any reasonable time, during or after the watching brief, by the developer, or any designated representative of the Local Planning Authority.

8.2 In undertaking the work the archaeological contractor is to abide by:

- all statutory provisions and by-laws relating to the work in question, especially the Health and Safety at Work *etc.* Act 1974;
- the Chartered Institute of Archaeologist's *Code of Conduct*;
- the Chartered Institute of Archaeologist's *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*.

8.3 On completion of the watching brief the archaeological contractor will prepare a consideration of the methodology used, including a confidence rating.

Canterbury Archaeological Trust  
November 2022

## References

Chartered Institute for Archaeologists 2014 (updated 2020) *Standard and Guidance for an archaeological watching brief*

Kent County Council Historic Environment Record:

<http://www.kent.gov.uk/ExploringKentsPast/advancedsearch.aspx>

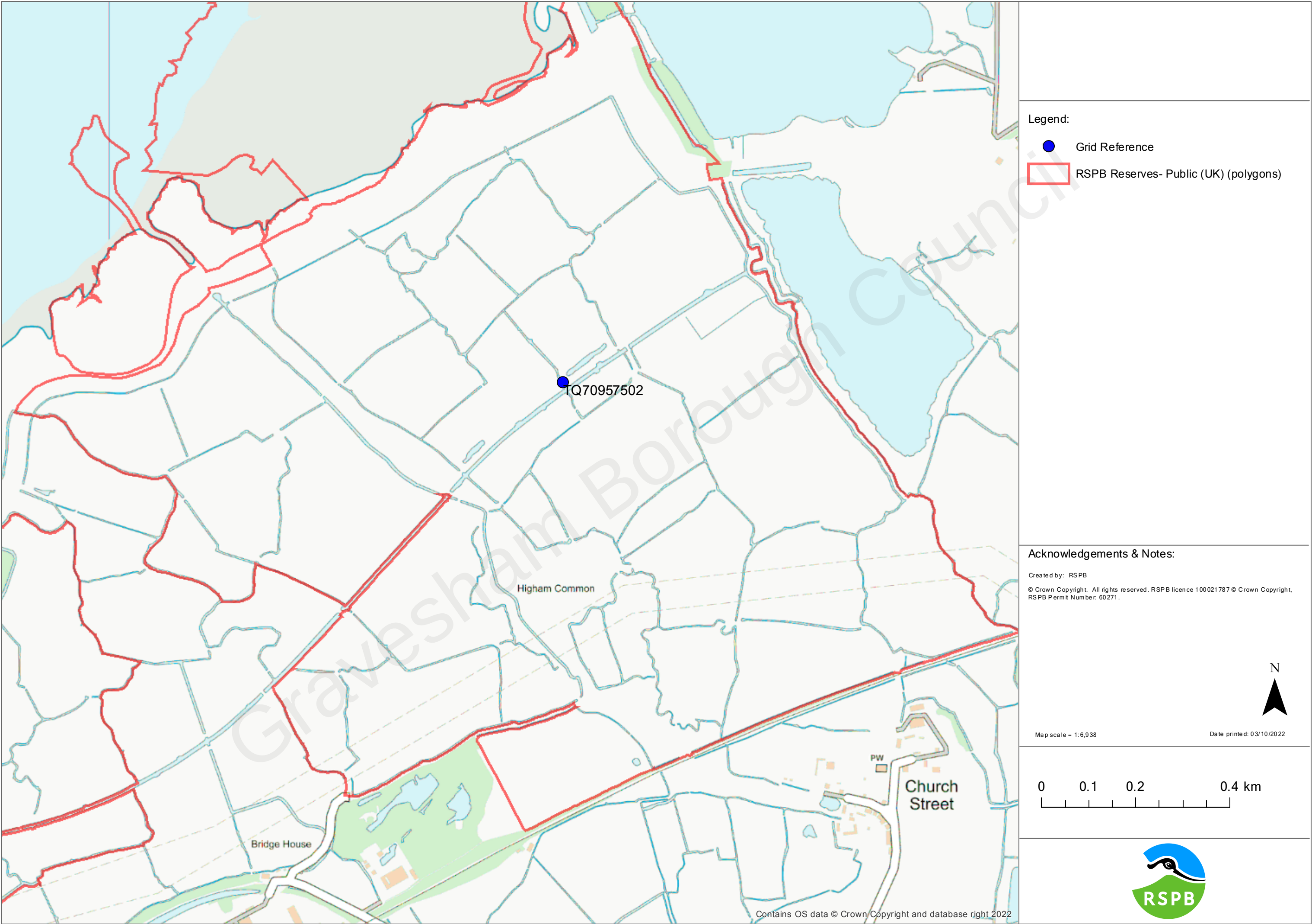


Figure 1 Site location plan



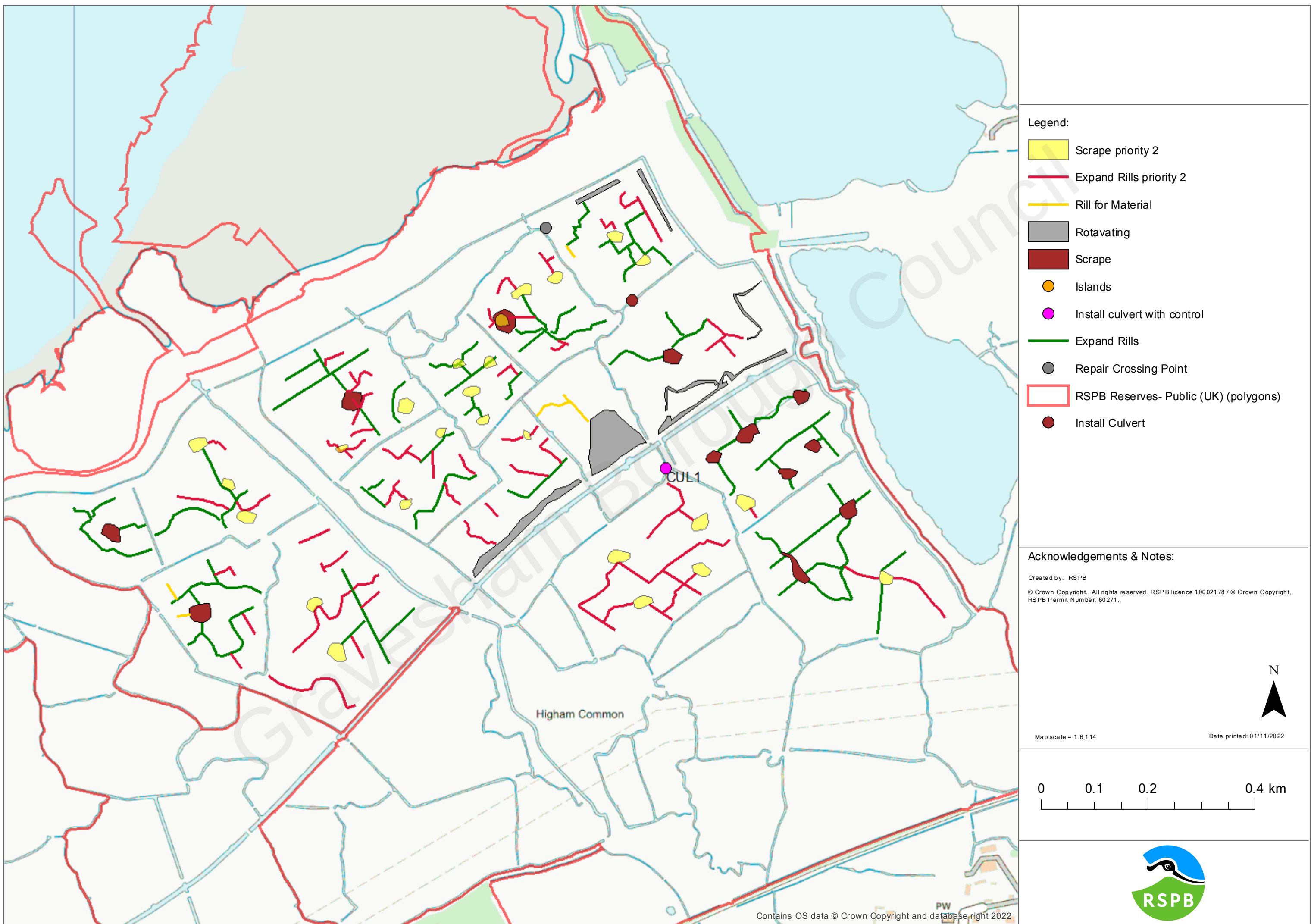


Figure 3 Detail of proposed groundworks within Higham Marshes