VPI Immingham, Humber Zero Project

WSI for Archaeological Mitigation Works

VPI

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Quality information

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1. Introduction

1.1 AECOM (the Archaeological Consultant) have been commissioned by VPI Immingham LLP (the 'Client') to prepare a Written Scheme of Investigation (WSI) for a programme of archaeological mitigation works to be undertaken at land adjacent to VPI Immingham, Rosper Road, South Killingholme, North Lincolnshire.

1.2 The land adjacent to VPI Immingham (hereafter the 'Site') is situated within the administrative district of North Lincolnshire, approximately 1.6km north of Immingham and 1.5km west of the Humber Estuary. The Site comprises two irregular shaped areas, c.5.8ha and c.2.2ha in size, separated by a watercourse, south of the existing Combined Heat and Power Plant (CHP). The site is currently rough pasture and centred on NGR TA 16798 16959 (Figure 1).

1.3 The archaeological works will be undertaken in accordance with this WSI and the requirements of nationally recognised archaeological guidance, including the professional standards issued by the Chartered Institute for Archaeologists (CIfA) (specifically the Standard and Guidance for Archaeological Field Evaluation (2020a)).

1.4 The archaeological works will be managed in accordance with the Historic England publications Management of Research Projects in the Historic Environment (MoRPHE): Project Managers Guide (2006), and the MoRPHE Project Planning Note 3: Archaeological Excavation (PPN3) (2008). It will also meet the requirements of the National Planning Policy Framework (NPPF; Chapter 16: 'Conserving and enhancing the historic environment'; MHCLG 2021).

1.5 The Local Planning Authority is advised on all archaeological matters relating to this project by Alison Williams, the Historic Environment Officer for North Lincolnshire Council (NLC)

1.6 This document sets out the methodology, specification and protocols to be adhered to during the completion of the archaeological fieldwork, as well as the interim reporting and preparation of the fieldwork reports which will be completed by the Archaeological Contractor. In addition, the requirements and responsibilities of the Archaeological Contractor, the Archaeological Consultant and the Client have been set out to assist the Archaeological Contractor in the completion of the archaeological works.

1.7 The WSI has been prepared by AECOM on behalf of the Client in accordance with guidance provided by the CIfA, including the Standard and Guidance for archaeological field evaluation (2020a). The WSI will be submitted to the Historic Environment Officer for North Lincolnshire Council (NLC) for comment and approval before works commence.

2. Site Description Location and Geology

2.1 The Site is situated within the administrative district of North Lincolnshire, approximately 1.6km north of Immingham and 1.5km west of the Humber Estuary. The Site comprises two irregular shaped areas, c.5.8ha and c.2.2ha in size, separated by a watercourse, south of the existing Combined Heat and Power Plant (CHP). The site is currently rough pasture and centred on NGR TA 16798 16959 (Figure 1).

2.2 The British Geological Survey (BGS 2022) mapping records the underlying bedrock on site as Burnham Chalk formed as deep seabed deposits approximately 93.9 to 83.6ma (million years ago) during the Cretaceous Period. The site is located within the Humberside area on low lying terrain generally at elevations between 2-4m above Ordnance Datum (AOD). The natural drainage direction across the site is east toward the Humber Estuary.

2.3 The BGS (2022) geology maps show that two superficial deposits underlie the Site. Diamicton glacial till is the main deposit from the last (Devensian) cold stage and underlies the majority of the site. Till is deposited by glacial ice, either at the glacier base or derived from material within and on the ice. It comprises gravelly sandy silty clay with boulders and contains numerous lenses of sand and gravel. The till is also likely to contain interdigitating units of glaciolacustrine clay, plus sand and gravel formed during ice advance and retreat (Burke et al., 2015).

2.4 The Holocene (12,000 years ago – present) superficial deposits consist of tidal mudflats (clay, silt, sand, and peat) forming a linear feature entering the site from the east (BGS 2022) which may form an inlet that existed from the prehistoric period onwards. The Site is located 2.2 km to the west of the Humber Estuary Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar site and falls within the SSSI impact risk zone. The Site is entirely within Flood Zone 3.

3. Archaeological and Historical Background Summary

3.1 Desk Based Assessment undertaken in 2022 (AECOM 2022) identified a moderate potential for pre-Iron Age prehistoric deposits, and a high potential for Iron Age, Roman, Medieval and Post Medieval remains to be present within the Site.

Archaeological Background

Prehistoric and Roman

3.2 Previous archaeological investigations to the immediate north and south of the Site in 1999/2000 and 2015 uncovered extensive archaeological remains, some of which are likely to extend into the trial trenching area.

3.3 Archaeological investigations undertaken on the site of a proposed combined heat and power plant (CHP) at North Killingholme, west of Rosper Road, between 1999 and 2000 uncovered a significant occupation site with Iron Age origins. Part of this settlement is located within the Site, at its northern extreme, partially under the extant buildings, partially within the (potentially less disturbed) area of the car park on the northeast edge of the Site and partially within the southern open area of the Site.

3.4 The investigations comprised of a desk-based assessment, fieldwalking, geophysical survey, auger survey, watching briefs, trial trenching, and open area excavation. The work revealed that an original early Iron Age settlement was located in the south of the site, on the lower ground near a former creek on the shore of the River Humber. There then appears, on the basis of the pottery sequence, to have been a hiatus in the mid to late Iron Age. The late Iron Age and Romano-British settlement developed on higher ground further north, centred around a droveway and a pattern of enclosures. The northern part of the settlement appeared to have been unenclosed: although the single mid-Iron Age roundhouse from this period was found between two boundary ditches, these appeared to represent the subdivision of an open area, as opposed to the enclosure of smaller compounds. The nature of the pottery, a general lack of artefacts, and the environmental evidence from the site all suggested a rural, pastoral settlement. Moreover, given the presence of a droveway, ponds, and enclosures interpreted as pens or corrals for livestock, it appeared that the settlement was mainly dependant on raising cattle and sheep/goats. Pottery evidence for the later Iron Age and Romano-British periods suggested that until the mid-2nd century there was a scarcity of imports, and it is likely that at this time the site was of a relatively low status. During the latter part of its life (late 2nd century onwards) the settlement appears to have become more affluent (as represented by the cultural material, including foreign imports) and could be seen as a more moderate to high status site.

3.5 A programme of archaeological mitigation immediately south of the Site was carried out during the spring and summer of 2015 in advance of road improvement works to the A160/A180 access to the Port of Immingham. This identified two large linear ditches which contain notable quantities of late Iron Age pottery. It is suggested that these features were part of an occupation enclosure rather than a field system. These features were originally believed to be located 16m southeast of the Site. However, the 2015 mitigation suggests that they may extend into the Site (AECOM 2022).

3.6 Several Iron Age/Roman sites as well as evidence of earlier Late Bronze age occupation are located within the vicinity of the Site. The later Bronze Age activity was located 260m southeast of the Site where an archaeological evaluation identified various deposits (including burnt stone and charcoal) found in association with other features such as ditches. The site did not appear to be domestic in nature and was thought to be associated with exploitation of the estuarine environment, with semipermanent industrial and marine resource exploitation activities being present.

3.7 The Iron Age remains in the vicinity of the Site comprise field systems as well as enclosures and associated features. Several of the sites were major or significant settlements, with occupation beginning in the mid-late Iron Age and extending into the Roman period, similar to the site excavated to the immediate north of the Site in 1999/2000. The closest of these lies 215m to the southwest of the Site and

consisted of a number of sub-square enclosures which contained curvilinear features (possible ring gullies), linear ditches and discrete pit type features, at least one of which was a hearth. Domestic occupation appeared to be concentrated to the west of the site. There was also some evidence for salt making being carried out towards the wetter eastern part of the site. It is possible this site was a continuation of the Bronze Age activity described above.

3.8 Two Iron Age settlement site were located to the north of the Site. Approximately 370m to the northeast and excavation in 2013 uncovered two large enclosures. Both featured internal sub-divisions, with the southernmost displaying evidence of six ring gullies and other structural elements dating from the mid to late Iron Age and early 1st century AD.

3.9 The other major Iron Age settlement site was present 820m north of the Site. It was examined via geophysical survey (2011 and 2012), fieldwalking (2012) and trial trench evaluation (2012). The results of this work present a complex site which covers c. 6ha. The site began life in the mid / late Iron Age and was in use until the mid / late Roman period. The sites, broadly, consist of a multi-phased arrangement of interconnected, rectangular, ditched enclosures orientated on a north-south axis. Within these enclosures are numerous features representing structures, animal enclosures, and the subdivision of land plots and fields.

3.10 The remains of a field system were identified in an archaeological evaluation in 2006, approximately 100m north of the Site.

3.11 Several Romano-British settlements as well as field systems have been identified within the vicinity of the Site. The closest lies 40m to the west and comprised ditches that appeared to be a continuation of the field system associated with the farmstead or settlement recorded within the VPI site during the 1999/2000 excavations. Small quantities of Roman pottery were recovered from the fills of the ditches.

3.12 The settlement sites included two Romano-British ladder settlements, one c.650m south of the site and another c1.5km to the west. The settlement to the south was recorded by geophysical survey and a metal detecting survey and comprised of a complex series of rectangular ditches conjoined to either side of a trackway. Some of the positive anomalies within the settlement were suggestive of wall footings and arranged in such a way to suggest buildings. The metal detecting survey found 3rd and 4th century coins and two Roman brooches of the 1st or 2nd century. A Roman lock bolt fragment, 32 sherds of greyware, 30 lead fragments and 14 copper alloy fragments (including part of a vessel) were also recovered.

3.13 The settlement to the west possibly consisted of one or more farmsteads. The pottery was largely utilitarian shell-gritted ware, typical of the Late Iron Age - Roman transition in North Lincolnshire. One sherd in a cream fabric was thought to originate from a 1st century AD kiln at Lincoln, whilst other material was more distinctively late Roman (3rd – 4th century AD). There was also evidence for metalworking residue, fired clay fragments, oyster shells, and animal bone.

3.14 Another Romano-Brits settlement site comprising of a large main sub-rectangular enclosure which contained several ring gullies and other fragmentary structural elements was located 850m northwest of the Site. The main enclosure had several sub-enclosures appended to it and a short stretch of double ditched trackway was recorded. The features displayed evidence of being re-worked and adapted from the mid to late Iron Age through to the early 2nd century AD, with artefactual evidence supporting the chronology.

Medieval/Post-medieval

3.15 Several units of medieval ridge and furrow were digitally plotted using pre-existing aerial photographs from the 1940s and 1970s as well as new data collected during 2011 (geophysical survey). The ridge and furrow activity was seen to cover the location of the current VPI Immingham buildings and the potentially undisturbed Site, where there is the potential for preservation.

3.16 One concurrent length of hedge, the remains of historically important hedgerows that appear as field boundaries on pre 1840 maps, currently runs along the eastern perimeter of the VPI Site.

3.17 A linear cropmark (possibly a ditch) thought to be of medieval / post-medieval date in present in the west edge of Site.

Previous Archaeological Evaluation

3.18 Previous archaeological evaluation works consisted of two approaches to evaluating the site. Geoarchaeological boreholes were excavated for the areas of the site where the Pleistocene topography (i.e. the underlying Pleistocene superficial or older bedrock geology) is low lying and deeply buried beneath thick deposits of minerogenic alluvium and organic peat deposits. Long term human settlement is less likely in such areas where seasonal to permanent waterlogging would have occurred to a greater extent or more frequently earlier in the Holocene. As a result of the low potential for human settlement in such areas and the logistical difficulties of undertaking trenches or test pits to such depths, boreholes were deemed the most appropriate and effective means of investigation. Where the Pleistocene topography was anticipated to be higher and nearer to the current ground surface, archaeological remains of longer-term human activity and settlement is more likely especially on the fringes of rich wetland resources as provided by the potential inlet running across the site. In areas of higher Pleistocene topography evaluation by trial trenching, consisting of 32 interventions was undertaken.

Trenching Results

3.19 Thirty-two trenches were excavated at the site. Three areas of occupational activity were encountered which were concentrated in the northwest, northeast and southeast corners of the Site, centred on the higher ground. The central area of the Site was characterised by a flooding deposit sequence associated with a possible coastal inlet, which was aligned west to east across the site. The north-western corner of Site featured a number of ditches containing some Romano-British pottery and animal bone. There were also a small number of pits beside a possible paleochannel; these were potentially prehistoric in date, indicated by the recovery of late Mesolithic/ early Neolithic lithic fragments.

3.20 The northeaster corner of Site featured an alignment of postholes, one of which contained a surviving timber post, and several small ditches which were possible small boundary or enclosure ditches. The southeaster corner featured dense Iron Age/ Romano British activity including a large multiphase curvilinear ditch within a possible enclosure, as well as small ditches associated with field systems. The finds assemblage was small, with deposition of finds largely concentrated in the southeaster corner, and many features remained undated. The finds assemblage included late Mesolithic/ early Neolithic scrapers and blades as well as industrial waste in the form of slag.

3.21 Where trenches did not reveal glacial till sondages were excavated roughly at each end of each trench to reach the till. In some trenches, additional central sondages were excavated. These sondages provided further interventions from which accurate Holocene stratigraphic records could be taken for the purposes of deposit modelling.

3.22 The location of archaeological activity within the Site indicates that this activity probably represents the continuation of settlement activity and features identified in adjacent areas. This was identified during archaeological works completed in the early 2000s as part of the construction of VPI Immingham and improvement works on Rosper Road.

Geoarchaeological Boreholes

3.23 The geoarchaeological evaluation comprised the drilling of 11 purposive geoarchaeological boreholes to a maximum depth of c. 6m below ground level and the extraction and retention of the cored samples. Geoarchaeological and geotechnical deposit data can be used to identify areas of archaeological potential by characterising the probable nature and depth of sub-surface deposits.

3.24 The deposit sequence recorded across the Site included Pleistocene glacial till with a varying surface elevation between approximately -0.5 and 3 m OD (above Ordnance Datum). The lower elevations traverse the Site from the northeaster boundary, forming a relict coastal inlet. This inlet was found to be infilled with intertidal deposits. Holocene alluvium or warp deposits were found across the site. Made ground of up to approximately 1.4m in thickness was recorded.

4. Aims and Objectives

Archaeological Mitigation (Excavation)

The aims of the archaeological mitigation works are to investigate, record and report on the archaeological resource in the Site boundary.

The proposed mitigation will be in accordance with the areas highlighted in Figure 2. There are three specific aims to the works:

1. To examine the known settlement areas.
2. To examine the potential of deeper archaeological deposits (those within the flood deposits) and to create a transect or soil profile linking the higher “drier ground” with the lower flood deposits and creating a soil profile across the entire site.
3. To complete the soil profile transect of the site. To also examine potential archaeological deposits and features which may be associated with the marshland.

5. Scope of Work

5.1 The archaeological investigation will comprise targeted excavation areas and geoarchaeological investigations to complete the soil profiles of the site (see section 4: aims and objectives). The location and size of the excavation areas have been agreed following the result of the trial trench evaluation investigations and consultation with the Historic Environment Officer for North Lincolnshire Council (NLC).

5.2 It may be necessary for the Archaeological Contractor to undertake a preliminary hazard assessment of the fieldwork area prior to the commencement of the fieldwork. The Archaeological Contractor will notify the Client and Consultant of any areas unsuitable for excavation due to hazards or ground conditions.

5.3 The Archaeological Contractor will produce a method statement in response to the updated WSI detailing the methods for the archaeological investigation and CVs of the site manager, site supervisor and proposed post-excavation specialists for submission to and approval by the Historic Environment Officer for North Lincolnshire Council (NLC).

Site Mobilisation

5.4 The Archaeological Contractor will be responsible for establishing and decommissioning their own temporary site welfare facilities as necessary (compound, welfare facilities etc). If temporary site welfare facilities are proposed on Site their location, access routes, ground protection measures and security arrangements will be agreed prior to the start of the evaluation, in consultation with the Client.

5.5 The Archaeological Contractor shall keep a photographic record at each location where temporary welfare facilities are proposed, both prior to installation and after decommissioning.

6. Site Constraints

6.1 The safety specific requirements of work in this environment will be communicated to the Archaeological Contractor during the scoping, inductions and briefings given to them. The Archaeological Contractor will adhere to all the requirements of the Client and the Site’s operating and health and safety procedures at all times. Site specific information and constraints will be provided by the Client and will be incorporated into the Archaeological Contractor’s RAMS. It may be appropriate to operate a permit system for all work to ensure control measures have been considered and implemented in relation to site constraints.

6.2 The Archaeological Contractor will obtain an updated utilities search (PAS128 D). The Archaeological Contractor will be supplement this updated search with observations from the initial site inspection (PAS128 C) prior to mobilisation to Site and will review and adjust intrusive works accordingly.

7. Methodology

General Requirements

7.1 All archaeological works will be carried out in accordance with this WSI and any further instructions from the Client. This WSI takes account of the guidance provided by the CIfA Code of Conduct (CIfA, 2021), the Standard and Guidance for An Archaeological Watching Brief (CIfA, 2020a), and other current and relevant good practice and standards and guidance (refer to Appendix A).

7.2 All works outlined within this WSI, and detailed in the Archaeological Method Statement, will conform to the Historic England procedural document Management of Research Projects in the Historic Environment (MoRPHE) (Historic England, 2015). The Archaeological Contractor shall also apply any other relevant standards and guidance and good practice.

7.3 The Archaeological Contractor will undertake the works according to this WSI and any subsequent written variations. No variation from or changes to the WSI will occur except by prior agreement with the Archaeological Consultant and in consultation with the Historic Environment Officer for North Lincolnshire Council.

Geoarchaeological Investigations

7.4 The number and location of the boreholes required to complete the soil profile transect across the site (see Section 4: Aims and Objectives) will be proposed by the Contractor and approved by the Archaeological Consultant and Historic Environment Officer for North Lincolnshire Council (NLC).

7.5 Boreholes will be drilled by a sub-contractor drilling rig and crew, with geoarchaeological supervisor in full time attendance. Boreholes will need to be drilled to top of pre-Holocene superficial or solid geology (e.g. till or chalk), whichever is encountered first. This pre-Holocene surface is mapped on site at c. - 2 to 4m AOD, so potentially 0 to 6m below ground level (bgl). Where possible the pre-Holocene deposits will be drilled into a further c. 0.5m to prove they are in situ. Drilling may be required to go below the surface of the pre-Holocene deposits where palaeolithic potential is expected but this is not anticipated on this site. Continuous core samples will be collected throughout the drilled deposit sequence. The cores will be retained by the Contractor.

7.6 The locations will be drilled with a tracked window sampler (e.g. Premier or Dando rig) taking window-less samples (1m long cores). The locations will be drilled by a sub-contracted drilling crew, under the supervision of a geoarchaeologist/environmental archaeologist. Where appropriate, service pits (approximately 300mm x 300mm) will be hand-dug to c 1.2m at each location, and the holes CAT-scanned for live services at regular intervals by the contractor during this process.

7.7 On site, the geoarchaeologist will photograph and log the sediments revealed in the cores according to standard geoarchaeological criteria (Troels-Smith 1955; Jones et al 1999; Tucker 2003). The geoarchaeologist will keep a field log of the boreholes and a photographic record of the site and cores. Preliminary interpretation of the deposit sequence sampled in the cores will be made on site and an overview of the lithology will be produced that will characterise the stratigraphy and identify formation processes.

7.8 As a minimum all logs will be tabulated to include the following descriptive information:

- Sample Unique Identification Number; Location (XY coordinates);
- Level of the top of the sample (e.g. m OD);
- Depth for top and bottom of each lithological unit;
- Depths for poor / no sediment retrieval.

- Description of each lithological unit, following conventional standards (see Historic England 2015) and including sediment structure.
- Colour.
- Texture; and
- Sorting and boundary characteristics.

7.9 While the drilling rig is running the geoarchaeologist will remain outside the active working area of the rig. The geoarchaeologist will signal the lead driller when they wish to approach the rig and will approach only when it is safe to do so. Upcast or core samples will be brought by the drilling crew outside of the active drilling area, to a safe designated area, and made available to the geoarchaeologist for recording.

7.10 The borehole locations will be surveyed in, with each position located to a six-figure national grid reference, and the elevation measured to metres aOD.

7.11 The borehole cores will be adequately sealed and labelled and taken to Contractor's laboratories where they will be kept in controlled storage for retention during the subsequent stages of the project (e.g. paleoenvironmental assessment). As a general rule cores have a shelf life limited to 3-4 years. Once in the contractors laboratories, the cores may require extrusion or further cleaning/examination.

7.12 In order to create the deposit model, the geotechnical data will be entered into a digital database (Rockworks 20). Any recent geotechnical logs supplied by the client or previous archaeological work onsite may be given the prefix 'SA' for shell and auger boreholes, 'RT' for rotary boreholes, 'WS' for window samples, 'AH' for auger holes, 'TP' for test pits, or 'TR' for trenches. BGS logs (BGS 2020) added to the database will be given a prefix relating to the two-letter grid square of its national grid reference e.g. TQ. The distribution of this data set will be presented and the data references for the sedimentary logs provided.

7.13 Each lithology type (gravel, sand, silt, clay etc.) will be given a unique colour (primary component) and pattern (secondary component) enabling visual correlation of the sediment components of deposits across the site. By examining the relationship of the lithology types (both horizontally and vertical) in preliminary and iterative transects, correlations can inform the site-wide deposit groups. The grouping of these deposits will be based on the lithological descriptions, which represent distinct depositional environments, coupled with a wider understanding of the local floodplain sequences. Thus, a sequence of stratigraphic units ('facies'), representing certain depositional environments, and/or landforms can be reconstructed both laterally and through time.

7.14 Inverse distance weighted (IDW, weighting =2, number of points =12) digital elevation model (DEM) and thickness (Isopach) plots will be produced for key deposits (i.e. units defining major changes in the environment and modes of deposition) and surface horizons. These highlight major features of the topography through time. In this respect, the most common surface plot depicts the surface of the Pleistocene (or older) deposits and gives an approximation of the topography of the site as it existed at the beginning of the early Mesolithic period c 10,000 years ago. The development of the Holocene floodplain is likely to have been influenced by the topography inherited from the Pleistocene/Late glacial period. This surface would have dictated the course of later channels, with gravel high points forming areas of dry land within the wetlands, and lower lying areas forming the main threads of later channels. Many of the additional surface or thickness plots provided will likely be more representative of deposit survival than time-specific landscapes (Yendell 2020).

7.15 The overlying deposit sequence across the site depicted by the stratigraphic units, as representative of specific depositional environments and/or landforms laterally and through time for the site and immediate vicinity, will also be illustrated in profile or transect form. Such transects present a straight-line correlation between the data points, extrapolating the stratigraphic units identified within each borehole.

7.16 By examining the surface and thickness plots in combination with the vertical deposition shown in the transects, areas of archaeological potential can be mapped. These will characterise the differing geoarchaeological and archaeological potential and significance of single stratigraphic units, deposit sequences containing multiple stratigraphic units, or specific landforms and depositional environments.

Archaeological Excavation

Machine Excavation

7.17 The archaeological works will be carried out in accordance with this WSI for archaeological mitigation and the Archaeological Contractor's approved detailed method statement.

7.18 The excavation areas will be set out using electronic survey equipment by the Archaeological Contractor. The extent of the stripped excavations will be clearly demarcated and secured with appropriate barrier fencing (such as Heras fencing) to ensure that persons or vehicles cannot inadvertently traverse the areas of investigation while archaeological works are in progress. The fencing will be regularly inspected and maintained until archaeological works in the area have been completed, inspected, approved and signed off by the Archaeological Advisor.

7.19 The Contractor will be responsible for identifying all hazards on site, including the location of overhead and buried services, and ensure it is safe to excavate. The excavation area will be scanned by the Contractor using a Cable Avoidance Tool (CAT scanner) and Genny prior to and during the excavation (mechanical excavation and hand excavation) to ensure that no live services are present.

7.20 The machine excavation will be undertaken using an appropriate 360° mechanical excavator fitted with a toothless ditching bucket, to be provided by the Contractor. A toothed bucket or breaker may only be used temporarily if concrete, tarmac or other hard standing is encountered. A toothless bucket is to be used at all other times.

7.21 Upon removal of the topsoil, the underlying subsoil shall be removed by mechanical excavator under close archaeological supervision until either the top of the first archaeological horizon or undisturbed natural deposits are encountered. Particular attention should be paid to achieving a clean and well-defined horizon with the machine. The mechanical excavator will not traverse any stripped areas.

7.22 Topsoil overburden and subsoil will be stockpiled separately at locations specified by the Client. These locations will be included in the Archaeological Contractor's Method Statement.

7.23 The machined surface will be hand cleaned, if necessary, and inspected for archaeological features. Pre-excavation planning will be undertaken to record all identified archaeological features.

Hand Excavation

7.24 The areas of excavation/ ground disturbance (even if they reveal no archaeological features) will be surveyed using suitable electronic surveying equipment, resulting in a digital pre-excavation plan.

7.25 The archaeological investigation strategy will be determined by the range and complexity of the mapped archaeological features and their artefactual and paleoenvironmental content.

7.26 Any archaeological remains identified for sample excavation will be cleaned and hand excavated in an archaeologically controlled and stratigraphic manner sufficient to meet the aims and objectives of the archaeological investigation. Machine assisted excavation may be permissible, if large deposits are encountered, at the discretion of the Archaeological Advisor. A sufficient sample of deposits/ features will be investigated, through sample excavation in each area where archaeological remains have been identified, in order to record the horizontal and vertical extent of the stratigraphic sequence to the level of undisturbed natural deposits. Sample excavation will also target the interrelationships between features and major feature intersections to understand and record their relationships, where these are revealed / identified.

7.27 A flexible excavation sampling strategy will be utilized guided by the aims and objectives of the project. As a generic standard the following sample excavation will be carried out and may be varied to suit the research value of particular deposits.

7.28 Linear features: a minimum sample of 20% of each linear feature (each sample length will be not less than 1 m), excepting those of clearly modern date. Sample sections shall always be positioned to record accurate profiles of any deposit and to identify structural/ phasing sequences (for example terminus and intersections). Further, all intersections between features will be investigated to determine the relationship(s) between the component features. All termini will be investigated. It is possible that additional segments will need to be archaeologically excavated where good quality artefact/ ecofact

assemblages have been recovered from initial segments, or where insufficient data to address the project aims and objectives has been recovered. This will be undertaken by hand excavation by the Archaeological Contractor, or by careful machine excavation in spits, following recording of sufficient hand-excavated sections, and following consultation and agreement between the Archaeological Consultant and the Archaeological Advisor.

7.29 Discrete features: all pits, post-holes and other isolated features will normally be half-sectioned, and stake-holes fully excavated. If large pits or deposits (over 1.5 m in diameter) are encountered, then the sample excavated should be sufficient to define the extent and maximum depth of the feature and to achieve the aims and objectives of the excavation and should normally be excavated in quadrants.

7.30 Structural evidence: investigation shall determine phasing, dates, character, and nature of associated deposits to achieve the research objectives of the excavation.

Recording

7.31 Areas subject to archaeological monitoring and excavation, and all archaeological remains, will be accurately recorded using metric survey-grade equipment to an accuracy of +/- 10 mm (or its equivalent) (English Heritage, 2015) and fixed in relation to any existing survey markers. The data will be overlaid at an appropriate and recognizable scale onto the Ordnance Survey national grid (using digital map data).

7.32 A full written, drawn and photographic record will be made of all archaeological remains, in accordance with standard archaeological methodologies (see Appendix A).

7.33 Detailed hand-drawn plans and sections of features will be produced at an appropriate scale (normally 1:50 or 1:20 for plans and 1:10 for sections). All plans and sections will include spot heights relative to Ordnance Datum in metres, correct to two decimal places.

7.34 Photography will be taken using digital photography of not less than 10 megapixels (MP) resolution. The standards for site photography shall be in accordance with the requirements of the Archaeological Advisor for NCC. Digital photography should follow the guidance given by Historic England in Digital Image Capture and File Storage: Guidelines for Best Practice, July 2015. Digital images will only be acceptable if each image is supplied as both a JPEG and TIFF versions. The latter as an uncompressed 8-bits per channel TIFF version 6 file of not less than 25 Mbs (see section 2.3 of the Historic England guidance). The Archaeological Contractor must include metadata embedded in the TIFF file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name, the date of photograph, the subject of the photograph, the direction of shot and the name of the organization taking the photograph.

7.35 In addition to records of archaeological features, a number of general site photographs will also be taken to give an overview of the site. Particular attention should be paid to obtaining shots suitable for displays, exhibitions and other publicity.

Artefact Recovery

7.36 All artefacts are to be retained for processing and analysis except for 20th century material, which may be noted and discarded. All ‘significant finds’ will be recorded three dimensionally. If artefact scatters are encountered these should be recorded three dimensionally. Bulk finds will be collected by context. Finds will be stored in appropriate controlled conditions. If necessary, a conservator will visit the site to undertake ‘first aid’ conservation treatment or provide specialist advice.

7.37 All hand excavated spoil will be scanned for ferrous and non-ferrous metal artefacts using a metal detector capable of making this discrimination, operated by an experienced metal detector user employed by the Archaeological Contractor. Modern artefacts are to be noted but not retained (19th century material and earlier are to be retained).

7.38 All artefacts that are retained will be collected, stabilized, conserved, stored and processed in accordance with standard methodologies and national guidelines (refer to Appendix A). The Method Statement will provide an indicative artefact collection policy.

7.39 Artefacts will be stored in appropriate materials and conditions and monitored to minimise further deterioration.

Environmental sampling

7.40 Sampling will be carried out in consultation with the Consultant, and the Historic England Regional Science Advisor, as appropriate (e.g. dendrochronology, soil micromorphology, monolith samples, C14, etc.). Samples taken during the evaluation will be processed if securely correlated with features during mitigation.

7.41 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).

7.42 The sampling programme shall assess the potential for paleoenvironmental remains across the site in support of the aims of the mitigation. Samples shall be taken as routine from securely stratified deposits irrespective of their apparent 'organic' content as judged in the field or the presence of datable material. Samples shall be processed and assessed by appropriately qualified specialist staff.

7.43 The sampling regime may 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) with 1mm and 500micron sieves on a rack to collect the carbonised wash over.
- 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: Kubina 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).

7.44 Samples will be taken for scientific dating where necessary for the development of the site phasing/dating or to place the main historical processes that have affected landscape development within an absolute chronological framework. Material removed from site will be stored in appropriate controlled environments.

7.45 If industrial activity of any scale is detected, industrial samples and process residues will also be collected. Separate samples (c. 10ml) will be collected for micro-slags (hammer scale and spherical droplets).

Human Remains

7.46 Should human remains be discovered during the course of the excavations the remains will be covered and protected and left in situ in the first instance, in accordance with current good practice. The removal of human remains will only take place in accordance with a licence from the Ministry of Justice and under the appropriate Environmental Health regulations and the Burial Act 1857. In the event of the discovery of human remains the Archaeological Contractor will notify the Consultant immediately, who will contact the Historic Environment Officer for North Lincolnshire Council (NLC) to establish whether it is necessary to contact the office of H.M. Coroner.

Treasure

7.47 Any artefacts which are recovered that fall within the scope of the Treasure Act 1996 and Treasure (Designation) Order 2002 will be reported to the Consultant and H.M. Coroner immediately. The Archaeological Contractor will ensure that the Treasure regulations are enforced and that all the relevant parties are kept informed. In addition, the Archaeological Contractor shall maintain a list of finds that have been collected that fall under the Treasure Act and related legislation and this list shall be included in the fieldwork report.

7.48 Artefacts that are classified as 'treasure' will be removed to a safe place. Where removal cannot be affected on the same working day as the discovery, suitable security measures must be taken by the Archaeological Contractor to protect the finds from damage or unauthorised removal.

Finds Processing

7.49 Initial processing of finds (and if appropriate other samples) will be carried out concurrently with the fieldwork. The processing of finds will be finished shortly after completion of the investigations. The finds will be retained (according to the collection policy), washed, marked, bagged and logged on a MS Access or GIS database (or equivalent), together with their locations (if applicable) according to the National Grid (eastings, northings) and Ordnance Datum (height), accurate to 2 decimal places.

7.50 The finds assemblage will be treated, labelled and stored in accordance with the appropriate Historic England (formerly English Heritage) guidance documents and the Institute of Conservation guidelines (refer to Appendix A). At all times the Archaeological Contractor shall ensure that the processing of the assemblage is in accordance with the requirements of the recipient repository.

7.51 If appropriate, each category of find or each material type will be examined by a suitably qualified archaeologist or specialist and the results incorporated into the report.

Specialist Assessment

7.52 The Archaeological Contractor will include the list of staff they will use for specialist assessment prior to the commencement of fieldwork.

7.53 The stratigraphic information, artefacts, soils samples and residues will be assessed for their potential and significance for further analysis and study. The material will be quantified (counted and weighed). Specialists will undertake a rapid scan of all excavated material. An assessment will be made of each artefact type.

7.54 Materials considered vulnerable should be selected for stabilisation after specialist recording. Where intervention is necessary, consideration will be given to possible investigative procedures (e.g. glass composition studies, residues on pottery, and mineral preserved organic material). Allowance will be made for preliminary conservation and stabilisation of all objects and a written assessment of long-term conservation and storage needs produced. Once assessed, all material will be packed and stored in optimum conditions, in accordance with Watkinson and Neal (1998), CIfA (2020b) and Museums and Galleries (1992).

7.55 All finds will be cleaned, marked and labelled as appropriate prior to assessment. For ceramic assemblages any recognised local pottery reference collections and relevant fabric codes will be used.

8. Completion of Fieldwork

8.1 The Archaeological Contractor shall prepare and submit a Completion Statement to the Consultant within one working day of completing the survey.

8.2 The survey areas will be left in a tidy and workman-like condition and the Archaeological Contractor will ensure that all materials brought onto site are removed.

8.3 An OASIS entry shall be completed at the end of the fieldwork, irrespective of whether a formal report is required. The Archaeological Contractor will complete the online form at http://ads.ahds.ac.uk/project/oasis/ within one month following completion of the fieldwork. Archaeological Contractors are advised to contact OASIS (oasis@ads.ahds.ac.uk) for technical advice.

9. Monitoring Arrangements

9.1 To ensure that archaeological work is conducted in accordance with the agreed WSI, fieldwork and post-fieldwork reporting may be monitored by the Consultant and the Historic Environment Officer for NLC. A

minimum of one week notice will be given to the Historic Environment Officer for NLC of the commencement of the archaeological works.

9.2 The monitors are not liable in any way for the failings of the Archaeological Contractor and such monitoring is not intended to take the place of proper self-regulation.

9.3 Verbal progress reports will be provided to the Consultant upon request and weekly written progress reports will be provided to the Consultant if requested. In addition, progress meetings between the Consultant, the Historic Environment Officer for NLC and the Archaeological Contractor may be held on site during the course of the works.

9.4 The Archaeological Contractor will only accept instruction from the Consultant.

10. Report Requirements

10.1 An interim statement of the results of the archaeological investigation will be prepared and submitted to the Archaeological Consultant within one week following the completion of the works. The statement will include the following:

- a brief summary of the results;
- a plan of the area of archaeological investigation showing mapped features; and
- a quantification of the primary site archive.

10.2 If appropriate, a post-fieldwork assessment report will be prepared within twelve weeks following the completion of the archaeological investigations within the Site. Each category of find (including samples) will be examined by a suitably qualified archaeologist or specialist and the results incorporated into the fieldwork report.

10.3 The preparation of the site archive and post-fieldwork assessment report will be undertaken in accordance with current good practice standards and guidance. The precise format of the report is dependent upon the findings of the investigations, but it will contain the following:

- a quality assurance (QA) sheet detailing as a minimum: title, author, version, date, checked by and approved by;
- a non-technical summary;
- the archaeological and historical background (including an assessment of the results of previous phases of fieldwork);
- a full detailed methodology;
- a description of the aims and objectives of the archaeological mitigation works;
- the results of the investigations (to include full description of importance and significance of the remains, in their local, regional and national context cross-referenced to the Regional Research Framework);
- a general and detailed plan showing the location of the fieldwork accurately positioned on an Ordnance Survey base map (at an appropriate and recognised scale);
- detailed plans and sections illustrating archaeological features and relationships between features (at an appropriate and recognised scale);
- a statement that addresses the future retention of the material, if human remains are encountered, including, if appropriate, options for reburial;
- a list of all finds that fall within the scope of the Treasure Act and associated legislation;
- depending upon the complexity of the remains, a stratigraphic matrix for each excavated area and, if applicable, how areas interlink;

- an assessment / conclusion and a statement of potential (stratigraphic, artefactual, environmental);
- recommendations for reporting and publication;
- photographs that illustrate work in progress and archaeological discoveries;
- the current and proposed arrangements for long term conservation and archive storage (including details of the accredited repository);
- specialist artefact reports; paleoenvironmental/ geoarchaeological reports or their equivalent.
- an appendix illustrating specific finds and general working shots or portraits of specific features or structures as appropriate; and
- a cross-referenced index of the project archive.

10.4 The report will specifically comment on the results of the archaeological works and will highlight relevant information on the spatial extent, character, depth, preservation, date and detail of the archaeological resource, where appropriate. The report will comment on the potential for extrapolating the results onto adjacent areas, if applicable.

10.5 The Archaeological Contractor shall ensure that the report contains a quality assurance sheet that is appropriately signed-off to confirm that the report has gone through an in-house technical review process, before it is presented for external comment.

10.6 A digital PDF copy (complete with illustrations and plates) of the completed report will be submitted to the Archaeological Consultant as a draft for comment. The Archaeological Consultant will pass on the draft report to the Archaeological Advisor for and the Client for comment. In finalizing the report, the comments of the Archaeological Consultant, Archaeological Advisor and the Client will be taken into account.

10.7 A digital version (Word and PDF) of the finalized report will be submitted to the Archaeological Consultant within four weeks of the receipt of comments on the draft report. The finalized report will be submitted in digital format to the Archaeological Advisor and the Historic Environment Record, and to the Client. If required a hardcopy will be submitted on request. 5

10.8 The digital report shall comprise a CD (or equivalent digital media storage device) containing a complete version of the report in PDF format, separate digital text (Microsoft Word) and image files in JPEG or TIFF format. The CD should be an archival quality gold CD, in accordance with the requirements of HAP. Drawings/ figures shall be presented in AutoCAD format and ArcView shapefile/ geodatabase format. The digital drawing output in GIS will have the feature list and descriptions embedded into it.

10.9 An OASIS entry shall be completed at the end of the fieldwork, irrespective of whether a formal report is required. The Contractor will complete the online form at http://ads.ahds.ac.uk/project/oasis/ within one month following completion of the fieldwork. Archaeological contractors are advised to contact OASIS (oasis@ads.ahds.ac.uk) for technical advice.

11. Archive Preparation and Deposition

11.1 Archaeological material recovered from fieldwork is irreplaceable and data recorded in the course of archaeological investigations should be copied and additionally held securely in a separate location in line with current good practice (refer to Appendix A).

11.2 The Archaeological Contractor should compile a Data Management Plan in line with CIfA guidelines (2020b) and include it in their Method Statement.

11.3 The site records and assemblages (list of fieldwork interventions, notebooks / diaries, context records, feature records, structure records, site geometry (drawings), photographs and films, finds records and associated data files) will constitute the primary Site Archive. This is the key archive of the fieldwork project and the raw data upon which all subsequent assessment and analysis and future interpretation will be based. The archive will therefore not be altered or compromised.

11.4 The Site archive should be quantified, ordered, indexed and made internally consistent, and in line with current good practice (refer to Appendix A). All finds and coarse-sieved, and flotation samples will have been processed and stored under appropriate conditions. The archive will also contain a site matrix, a summary of key findings and descriptions of artefactual and environmental assemblages. Arrangements should be made for the proper cataloguing and storage of the archive during the project life cycle (it may be appropriate to liaise with an archive specialist). The content of an outline structure for a fieldwork archive is presented in MoRPHE, PPN3 Appendix 1, Product P1 and Product P3 (MoRPHE 2008).

11.5 The Archaeological Contractor will, prior to the preparation of the Archaeological Contractor's Method Statement, liaise with the recipient museum to obtain agreement in principle to accept the physical, documentary, digital and photographic archive for long-term storage. The Archaeological Contractor will be responsible for identifying any specific requirements, archiving costs or policies of the museum in respect of the archive, and for adhering to those requirements.

11.6 The archaeological works will have their own unique accession number, which will be obtained by the Archaeological Contractor from the recipient museum in advance of the preparation of the Archaeological Contractor's Method Statement, to ensure that the project is recorded in accordance with the requirements of the local authority. The unique accession number will be recorded in the Archaeological Contractor's Method Statement.

11.7 The archive of finds and records generated during the fieldwork will be removed from the Site at the end of each day and kept secure at all stages of the project until it is deposited with the recipient museum. The archive will be produced to current national standards (refer to Appendix A).

11.8 The deposition of the archive forms the final stage of this project. The Archaeological Contractor shall provide the Archaeological Consultant with copies of communication with the recipient museum and written confirmation of the deposition of the archive.

12. Health, Safety and Environment (SHE)

12.1 The safety specific requirements of work in this environment will be communicated to the Archaeological Contractor during the scoping, inductions and briefings given to them.

12.2 The works will be carried out under The Construction (Design & Management) (CDM) Regulations (Health and Safety Executive 2015).

12.3 All relevant preconstruction and health and safety information will be provided to the Archaeological Contractor by the Client prior to works commencing on Site.

12.4 The Archaeological Contractor will provide the Client with details of their public and professional indemnity insurance cover.

12.5 Project staff are required to follow health and safety procedures and a risk assessment should be carried out by the Archaeological Contractor and submitted to the Client prior to commencing work, to ensure the safety of workers on site.

12.6 The Archaeological Contractor will have their own Health and Safety policies compiled using national guidelines, which conform to all relevant Health and Safety legislation and good practice. A copy of the Archaeological Contractor's Health and Safety policy will be submitted along with their tender to the Client prior to work commencing on Site.

Risk Assessment and Method Statement

12.7 The Archaeological Contractor will prepare a Risk Assessment and Method Statement (RAMS) that will be submitted to the Client for approval, 20 working days prior to commencing the work. The RAMS may be issued back to the Archaeological Contractor with comments requesting amendments to be made to the document, before it is reissued, reviewed and approved. The Archaeological Contractor will not start work until the RAMS has been approved by the Client.

12.8 If amendments are required to the RAMS during the works, the Client and any other interested party must be provided with the revised document at the earliest opportunity.

12.9 The contents required of all RAMS are as follows:

a. Scope of Works
b. Project Specific Hazards / Risks / Environmental Factors
c. Reference Documents
d. Subcontracted and third-party workers
e. Areas of Work (access and egress)
f. Resources
g. Plant and Equipment
h. Materials
i. Mandatory PPE (Including a H2S monitor)
j. Task Specific PPE
k. Methodology of Works
l. Environmental Protection
m. HSE Hold Points
n. Attachments
o. Risk Assessment

p. Environmental Risk Assessment

q. Amendments Record

12.10 Briefing to those individuals involved in the work tasks will be delivered by the respective Archaeological Contractor's Site Manager or Supervisor and client/site representative (who is responsible for all the works prior to works commencing). Site staff are to ask questions on anything that is unclear or requires repeating. At the end of each shift, any feedback will be provided to the work supervisor / Site Manager on the RAMS performance via the Task Hazard Assessment procedure with a view to this being incorporated into future revisions of the documents as necessary.

12.11 All site personnel will familiarise themselves with the following:

- Site emergency and evacuation procedures.
- The site's health and safety coordinator.
- The first aider.
- Site fire safety procedure.
- Emergency muster points.
- The location of the nearest hospital (with an Accident and Emergency Department) and doctor's surgery.

12.12 All equipment that is used in the course of the fieldwork must be 'fit for purpose' and be maintained in a sound working condition that complies with all relevant Health and Safety regulations and recommendations. A review of any equipment will be undertaken prior to being brought on to site by the client.

12.13 The Archaeological Contractor will liaise with the Client and any other contractors to ensure that the archaeological work is undertaken in an organised, coordinated, safe and professional manner.

12.14 All parties will have full regard for the safety of all personnel on site, including measures to ensure the safety of all.

Mandatory Training

12.15 Mandatory training requirements for all site staff are:

- Construction Skills Certification Scheme (CSCS) card (or equivalent United Kingdom based scheme), appropriate to the role they are undertaking.
- Manual Handling Course – as mandated by the Archaeological Contractor.

12.16 Archaeological Contractor Site Supervisors are to hold the following mandatory training:

- Site Supervisors Safety Training Scheme (SSSTS) or equivalent.
- Construction Skills Certification Scheme (CSCS) card (Blac Card).
- Manual Handling – as mandated by the Archaeological Contractor.
- First Aid at Work (3-day course).

On-Site Training

12.17 Toolbox Talks will be undertaken weekly, on relevant subjects and delivered by the Archaeological Contractor's Site Manager or Supervisor to all persons on site. The briefing will be held within the site welfare facility and following the talk the opportunity to raise health and safety concerns, improvement suggestions, good practices, etc., will be opened up to all present.

12.18 Daily Site Briefings also provide a media for employees to discuss Health and Safety issues and for training to be delivered as part of the delivery of key tasks. These are undertaken prior to any works being undertaken on site each day. The proposed works for the day is discussed and all controls / work procedures reinforced to ensure that all members of the site team understand their role. At the end of these briefings the workforce can then discuss the proposed work methods and other issues.

13. Resources and Timetable

13.1 All archaeological personnel involved in the project will be suitably qualified and experienced professionals. The Archaeological Contractor will provide the Client and/or their representative with staff CVs of the Project Manager, Site Supervisor and any proposed specialists that might be involved in the post-excavation work. Site assistants CVs will not be required, but all site assistants will have an appropriate understanding of excavation procedures.

13.2 All staff will be fully briefed and aware of the work required under this specification and will understand the objectives of the investigation and methodologies to be employed.

13.3 The Archaeological Contractor on behalf of the Client will notify the Historic Environment Officer for NLCof the start date prior to the commencement of the works.

14. Confidentiality and Publicity

14.1 All communication regarding this project is to be directed through the Client. The Archaeological Contractor will refer all inquiries to the Client without making any unauthorised statements or comments. The Archaeological Contractor will not disseminate information or images associated with the project for publicity or information purposes without the prior written consent of the Client.

14.2 Publicity regarding the work will be managed by the Client. No publicity regarding the works will be disclosed without prior agreement from the Client.

15. Copyright

15.1 The Archaeological Contractor shall assign copyright in all reports, documentation and images produced as part of this project to the Client. The Archaeological Contractor shall retain the right to be identified as the author or originator of the material. This applies to all aspects of the project. It is the responsibility of the Archaeological Contractor to obtain such rights from sub-contracted specialists.

15.2 The results of the work shall be submitted to the Client and the North Lincolnshire Council HER and will ultimately be made available for public access following the Clients approval.

16. Access Arrangements

16.1 Access to the Site is restricted to authorised personnel only.

16.2 Access to the Site and instruction for access/ egress to each area will be arranged by Client and communicated to the Archaeological Contractor.

16.3 The Client will provide the Archaeological Contractor with the details for access and any known constraints prior to the start of fieldwork.

17. General Provisions

17.1 The Archaeological Contractor shall make the minimum of disturbance during the fieldwork and will avoid any unnecessary damage. Access for temporary parking and the location of site welfare shall be agreed with the Client prior to commencement of the archaeological evaluation works.

17.2 The Archaeological Contractor will undertake the works in accordance with this evaluation strategy and any subsequent Written Scheme of Investigation. No variation from, or changes to, the specification will occur except by prior agreement with the Consultant and the Historic Environment Officer for NLC.

17.3 The Site will be left in a tidy and workman-like condition and the Archaeological Contractor will ensure that all materials brought onto site are removed.

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Appendix B Figures

Revision: 1 Drawn: ER Checked: LC Approved: KC Date: 2023-10-12

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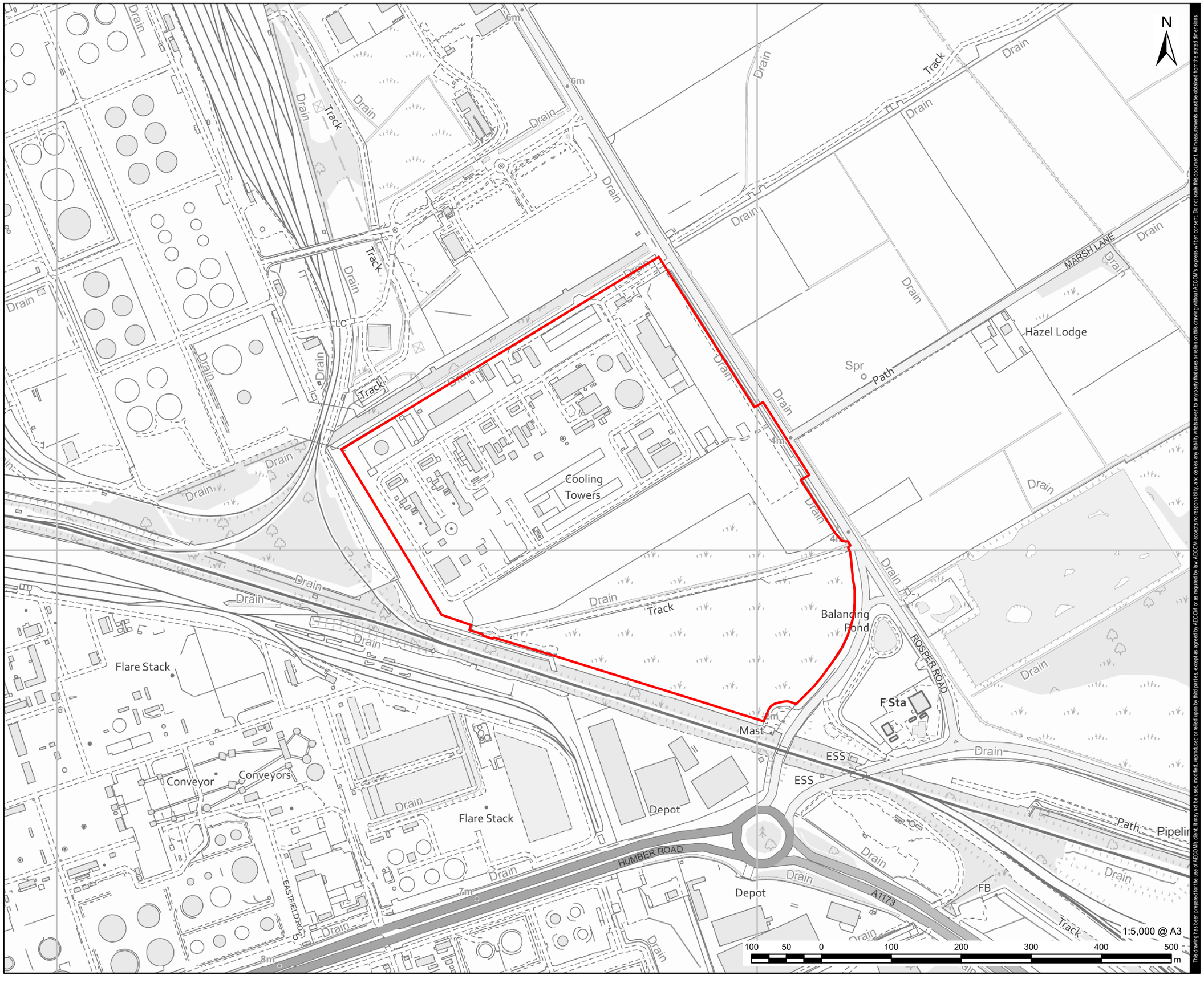

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Proposed VPI Development Application Boundary (the VPI Site)

NOTES

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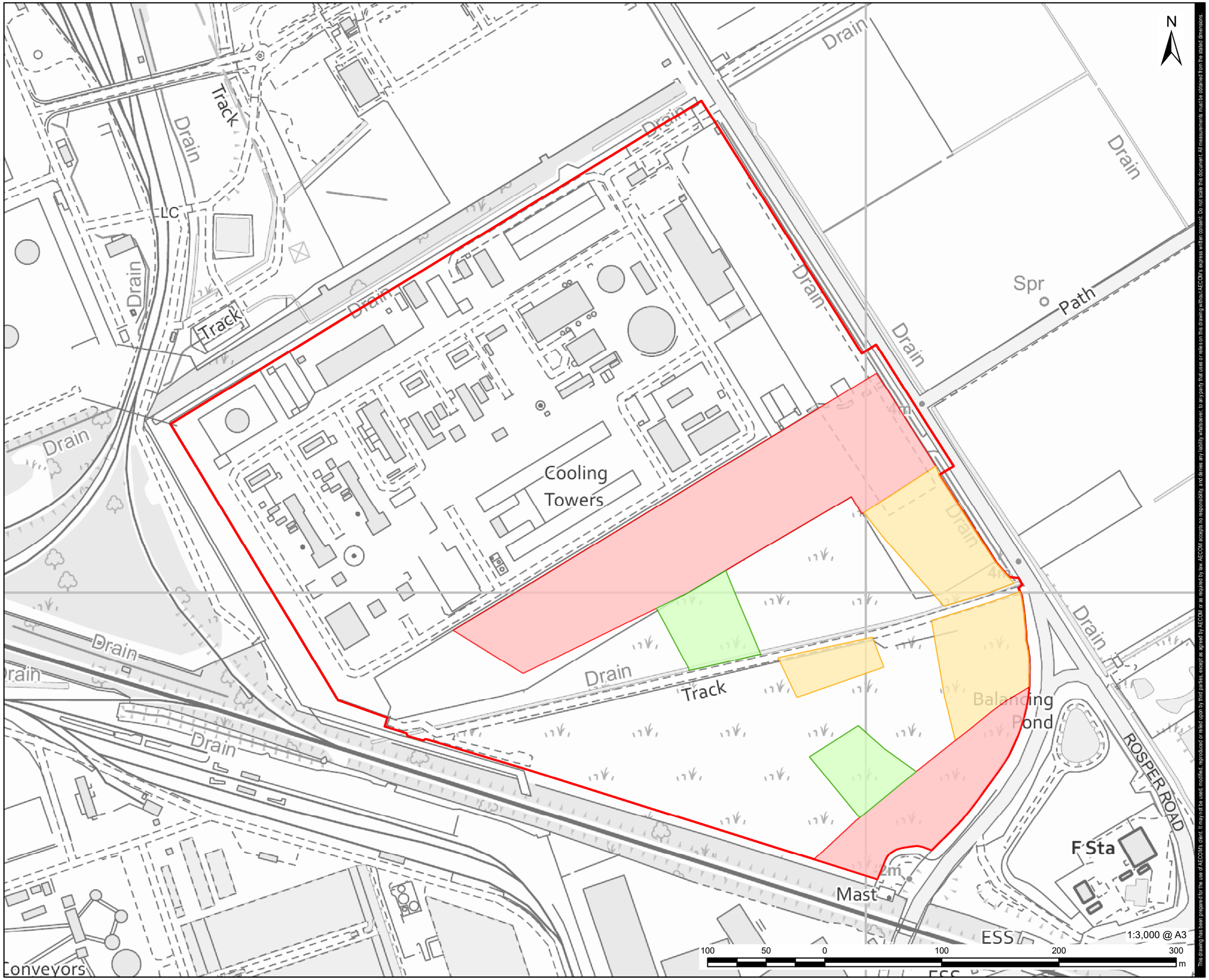
FIGURE TITLE

Proposed VPI Development Application Boundary (the VPI Site)

FIGURE NUMBER

Figure 1



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Proposed VPI Development Application Boundary (the VPI Site)

Areas for Proposed Mitigation

Area 1: To examine the known settlement areas.

Area 2: To examine the potential of deeper archaeological deposits (those within the flood deposits) and to create a transect or soil profile linking the higher "drier ground" with the lower flood deposits and creating a soil profile across the entire site.

Area 3: To complete the soil profile transect of the site. To also examine potential archaeological deposits and features which may be associated with the marshland.

NOTES

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FIGURE TITLE

Areas for Proposed Mitigation

FIGURE NUMBER

Figure 2

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