# A1 in Northumberland: Morpeth to Ellingham

## Scheme Number: TR010041

# 6.8 Environmental Statement – Appendix 8.4 North Charlton Intrusive Survey Information

## Part B

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

June 2020

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009**

# The A1 in Northumberland: Morpeth to Ellingham

Development Consent Order 20[xx]

## Environmental Statement - Appendix

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Highways England

# A1 ALNWICK TO ELLINGHAM ROAD IMPROVEMENTS SCHEME

## Written Scheme of Investigation for an Archaeological Trial Trench Evaluation: North Charlton

HE551459-WSP-EGN-A2E-RP-LE-2130
JULY 2019

PUBLIC

Highways England

# A1 ALNWICK TO ELLINGHAM ROAD IMPROVEMENTS SCHEME

## Written Scheme of Investigation for an Archaeological Trial Trench Evaluation: North Charlton

**PUBLIC**

**PROJECT NO. 70044137**
**OUR REF. NO. HE551459-WSP-EGN-A2E-RP-LE-2130**

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## *APPENDICES*

# 1 INTRODUCTION

## 1.1 SCHEME BACKGROUND

1.1.1. WSP has been commissioned by Highways England to produce a Written Scheme of Investigation (WSI) for an archaeological trial trench evaluation as part of the part of the Development Consent Order (DCO) application for the A1 in Northumberland Alnwick to Ellingham (**Appendix B; Figure 1**). The evaluation is required on land to the east of the A1 at North Charlton, Northumberland ('the Site', National Grid Reference (NGR) 417042, 622685; **Appendix B**, **Figure 2**), immediately to the west of the North Charlton Medieval village and open field system (List Entry Number 1018348). The evaluation is required in accordance with the National Policy Statement for National Networks (NPS NN; **Ref. 1**).

1.1.2. The Scheme is located within the county of Northumberland and forms part of Highways England's strategic road network. The Scheme is roughly located along the A1 between Denwick and North Charlton and is approximately 8 km in length. Throughout the length of the Scheme, the existing A1 would form the new northbound carriageway and a new southbound carriageway would be built to the east.

1.1.3. The Scheme would run immediately adjacent to the boundary of the North Charlton Medieval village and open field system Scheduled Monument (List Entry Number 1018348). The walkover survey identified earthworks extending from the Scheduled Monument into the Site which could be of archaeological origin. There is also a potential for buried archaeological remains. Paragraph 5.124 of National Planning Policy for National Networks states that "[non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments, should be considered subject to the policies for designated heritage assets." The aim of the evaluation is to establish if there are remains within the Scheme associated with and therefore equivalent to those in the Scheduled Monument.

1.1.4. The WSI sets out the scope and methodology for the archaeological evaluation, including the fieldwork method, approach to sampling, progress reporting, post-excavation reporting, archiving and dissemination. The aim of the evaluation is to clarify the presence, nature, date, extent and significance of any archaeological remains that might be present in the areas of proposed impact. It has been produced in consultation with Northumberland County Council Assistant County Archaeologist (NCC).

1.1.5. The results of the evaluation will inform any necessary mitigation strategies to be undertaken either in advance of or during the construction phase. Any archaeological mitigation work that may be necessary would require a separate WSI outlining the scope and method for that work and would need to be approved by NCC.

## 1.2 CONSULTATION

1.2.1. The draft WSI was submitted for comments to Karen Derham at NCC in July 2019. Comments received have been addressed in this document.

# 2 HISTORIC ENVIRONMENT BASELINE SUMMARY

## 2.1 SITE LOCATION

2.1.1. The Site is approximately 0.45 hectares in size and is located 10km north of Alnwick, to the east of the A1 at North Charlton (centred at approximately NGR 417042, 622685; **Appendix B**, **Figure 2**). The Scheduled Monument the North Charlton Medieval village and open field system Scheduled Monument (List Entry Number 1018348) extends to the east and west of the Site.

## 2.2 TOPOGRAPHY

2.2.1. The Site lies at a height of approximately 100m above Ordnance Datum (aOD) and the ground rises gradually from west to east, before rising sharply to form a linear bank, which runs on an approximate north-south alignment.

**Plate 1 - View north across the Site**

**Plate 2 - View south across the Site**

## 2.3 GEOLOGY

2.3.1. The solid geology underlying the Site comprises Tyne Limestone Formation and limestone, sandstone, siltstone and mudstone of the Alston Formation, formed during the Carboniferous Period. The solid geology is overlaid by glaciofluvial deposits of sand and gravel, laid down during the Devensian Stage of the Quaternary Period (BGS, accessed 02-07-2019). The local soils are described as loamy, freely draining and slightly acidic (Landis Soilscapes, accessed 02-07-2019).

**Current land use**

2.3.2. The site currently serves as pasture.

## 2.4 ARCHAEOLOGICAL BASELINE

**INTRODUCTION**

2.4.1. The archaeological potential of the Scheme, within which the Site lies, has been considered in the Historic Environment Desk-Based Assessment (HEDBA) currently in preparation (**Ref. 2**). The assessment employed a 1km study area for designated heritage assets and one of 500m for non-designated heritage assets. The following section provides an overview of the assessment, presented by period.

**PREHISTORIC**

2.4.2. No evidence of Palaeolithic or Mesolithic activity was identified within the 500m study area around the Scheme. Potential Neolithic activity is represented by the site of a Scheduled Monument bowl barrow (NHLE 1018499) 600m to the south of the Site, although this funerary monument type was still in use during the Bronze Age. Two worked flints of either

Neolithic or Bronze Age provenance were found at Charlton Mires 2km to the south-east of Site.

2.4.3. Bronze Age activity is attested to by two stone cists 300m to the south-west of Site. The features were excavated prior to 1824 revealing an inhumation burial associated with a bronze, flat riveted knife/dagger. Ellsnook round barrow, typical of the Bronze Age, is located 4km to the south of Site.

2.4.4. The Iron Age is represented by defended settlement sites. The Camp Plantation is located almost 900m to the north-west of Site. The Scheduled Monument (NHLE 1017955) comprises roughly triangular earthworks incorporating a raised natural feature. The Camp at West Linkhall (NLE 1006500) is located 1.3km south of the Site has never been intrusively investigated but it is considered to be of Iron Age date. A further possible camp represented by earthwork remains is located 750m south of the Site, alongside Shipperton Burn (HER 5043

**ROMANO-BRITISH**

2.4.5. There is no evidence of Romano-British activity within the 1km study area around the Proposed Scheme or the Site.

**MEDIEVAL**

2.4.6. Evidence of Early Medieval activity within the Proposed Scheme 1km study area is limited to place names. The settlement of Rock lies 4km to the south-east of Site and its name is likely to be derived from the Old French words *roche* and *roke*, meaning 'outcrops of limestone'. The place name of *Ealnwic* (now Alnwick) is of Saxon origin derived from its situation near the River Alne 10km to the south of Site.

2.4.7. The Norman Conquest of 1066 placed Northumberland on the front line of defence, with the Norman kings settling many noble families in north-east of England to increase the region's security. The largest of these families were led by Percy, Earl of Northumberland and to this day, his descendants remain one of the largest landowners in the region. Six motte and bailey castles were built within the region including at Alnwick (c. 10km south of the Site).

2.4.8. Following the Conquest, Alnwick Castle became the baronial residence of Ivo de Vescy, Lord of Alnwick until the castle was besieged by Malcolm II, King of Scotland in 1093. In 1135, Alnwick Castle was taken by David, King of Scotland, besieged by William in 1174, Robert Bruce in 1328 and again by the Scots in 1448. From the mid-15th century onwards, Alnwick was the seat of the Percy family (**Ref. 3**).

2.4.9. The origins of the townships within the area surrounding the Scheme can be traced back to the 13th century, for example the Bockenfield Township can be traced to 1206 where a Kings Concord was made in Newcastle concerning eight bovates and 72 acres of land. There are also links to the Churches within the area which were founded in this period. The township of North Charlton, where the Site is located, was originally held by the lords of Ditchburn, and in the 13th century was the property of Ralph Fitz Roger, followed by the Beaumont family in the 14th century until the 16th century.

2.4.10. Population numbers in the region were reduced by the combined impacts of the war with Scotland (late 13th century to early 16th century), and also by the arrival of the Black Death in 14th century which wiped out a quarter of the population. These factors led to a decline in population and thus a shrinkage in settlements, with some villages completely abandoned. There are remains of Deserted Medieval Settlements located throughout the area, including Heckley (HER 4430), Charlton Hall (HER 5054), Linkhill (HER 5055), Broxfield (HER 5650) and Denwick (HER 5711). The largest is the Scheduled Monument site of North Charlton medieval village and open field system (NHLE 1018348). The Scheduled site is aligned east / west and divided by low banks into small plots. To the east of the village, now separated from by the A1 trunk road, are part of the medieval open fields which once surrounded the whole village. They survive in the form of a series of furlongs or fields, each containing well preserved ridge and furrow cultivation (**Ref. 4**). Further details about the Scheduled Monument are provided in Section 2.5 below.

2.4.11. The 15th century was more prosperous which led to many deserted village being re-instated and an expansion of the rural hinterland surrounding them. During this time, existing defences at the castles were strengthened and a new type of building, 'the tower house', was introduced in many Northumberland villages as part of the Lord's residence. An example of this is found c 3.5km south of the Site, comprising the Scheduled and Grade I Listed Heiferlaw Tower House (NHLE 1014061 and NHLE 1304282). Located in a prominent position, the 15$^{th}$ century tower was built with intended views for the monks of Alnwick Abbey (c.1km from Scheme) and is attributed to the abbot of Alnwick Abbey and the Percy family (**Ref. 4**).

**POST-MEDIEVAL**

2.4.12. Post-Medieval activity is represented by the Grade II Listed Malcolm's Cross (NHLE 1153333) dedicated to Malcolm III, King of Scotland (1058-1093), erected in 1774. The gradual industrialisation of the region is represented in the HEDBA study area by the Grade II Listed assets of Barn and Engine House (NHLE 1041755) and Smithy (NHLE 1303729) at Broxfield Farm and limekilns to the north-west of Peppermoor (NHLE 1153931) and at Kiln plantation to the west of Rock (NHLE 1154647). The HER identified a mill at North Charlton (HER 25114) and several wells (HER 5037, 22425, 22429, 22431, 22433 and 22435).

**MODERN**

2.4.13. Assets of the Modern era comprise World War commemoration monuments including the Grade II Listed Denwick War Memorial (NHLE 1433767) and the South Charlton War Memorial (NHLE 1439802). Military activity during the Second World War is represented by pill boxes (HER 19936, HER 19874, HER 447) and a Scheduled Zero Station (NHLE 1014080), located within the Heiferlaw defended settlement. The underground station comprises three separate chambers with vertical access shaft and a cylindrical escape tunnel.

### GEOPHYSICAL SURVEY

2.4.14. A geophysical survey of the Scheme was undertaken between November 2018 and February 2019 (**Ref. 5**). The survey of the Site, adjacent to the Scheduled Monument, identified no magnetic anomalies thought to be associated human activity (**Appendix B, Figure 2**).

## 2.5 SCHEDULED MONUMENT SITE OF NORTH CHARLTON MEDIEVAL VILLAGE AND OPEN FIELD SYSTEM (NHLE 1018348)

2.5.1. The earthworks representing the remains of the North Charlton Medieval village and open field system was designated a Scheduled Monument in 1998. The following is the asset's description from the National Heritage List (**Ref. 4**).

***Reasons for Designation***

*Medieval rural settlements in England were marked by great regional diversity in form, size and type, and the protection of their archaeological remains needs to take these differences into account. To do this, England has been divided into three broad Provinces on the basis of each area's distinctive mixture of nucleated and dispersed settlements. These can be further divided into sub-Provinces and local regions, possessing characteristics which have gradually evolved during the last 1500 years or more. The Tweed local region includes the Kyloe Hills, the Till Valley and Milfield Plain, as well as the rolling ridges of the Tweed Valley proper. Its rectangular fields, low densities of dispersed farmsteads, tenant cottages and estate villages all signify agrarian improvement in the 18th and 19th centuries. Earthworks, usually in or near present villages, sometimes indicate the earlier medieval farming communities which have been replaced.*

*Medieval villages were organised agricultural communities, sited at the centre of a parish or township, that shared resources such as arable land, meadow and woodland. Village plans varied enormously, but when they survive as earthworks their most distinguishing features include roads and minor tracks, platforms on which stood houses and other buildings such as barns, enclosed crofts and small enclosed paddocks. They frequently included the parish church within their boundaries and, as part of the manorial system, most villages included one or more manorial centres which may also survive as visible remains as well as below ground deposits. In the central province of England, villages were the most distinctive aspect of medieval life and their archaeological remains are one of the most important sources of understanding about rural life in the five or more centuries following the Norman Conquest. Medieval villages were supported by a communal system of agriculture based on large, unenclosed open arable fields. These large fields were subdivided into strips (known as lands) which were allocated to individual tenants. The cultivation of these strips with heavy ploughs pulled by oxen teams produced long, wide ridges, and the resultant 'ridge and furrow' where it survives is the most obvious physical indication of the open field system. Individual strips or lands were laid out in groups known as furlongs defined by terminal headlands at the plough turning-points and lateral grass balks. Furlongs were in turn grouped into large open fields. Well-preserved ridge and furrow, especially in its original context adjacent to village earthworks, is both an important source of information about medieval agrarian life and a distinctive contribution to the character of the historic landscape. It is usually now covered by the hedges or walls of subsequent field enclosure. Although the remains of North Charlton medieval village are partly built over, considerable areas survive and contain significant archaeological*

*deposits. Together with the remains of its open field system, it will add greatly to our knowledge and understanding of medieval settlement and land use in the region.*

***Details***

*The monument includes part of the shrunken remains of the medieval village of North Charlton and its open field system, situated in the coastal plain of north Northumberland. The monument is divided into three areas. The township of North Charlton was held by the lords of Ditchburn and in the 13th century was the property of Ralph Fitz Roger. In 1296 a document records 12 inhabitants eligible to pay taxes. North Charlton passed to the Beaumont family in the early 14th century and, apart from a 20 year spell in the late 15th century, it remained in their hands until the early 16th century. A map of 1769 shows a two-row village at North Charlton. The village is aligned east-west and is divided by low banks into small plots with the remains of one building standing up to 0.4m high on the north side. To the south west of this building, across a slight hollow way, is a probable market cross consisting of a stone shaft 1.3m tall, set in a socket stone on a square base of three steps; a cross is referred to in a survey of 1578 as standing on South Row. The cross is Listed Grade II. The Charlton Burn separates the north side of the village from an area of ridge and furrow cultivation and a prominent mound called Castle Close. However, there is no evidence for there having been a castle at North Charlton and building foundations on top of the mound have been interpreted as those of the Chapel of St Giles. The foundations measure 15m by 8m with a structure 6m square attached to the north west side; the interior is slightly raised. The chapel is mentioned in documents in the mid-12th century and had fallen into ruin by the 14th century. Around the base of the mound is a stony bank up to 1m high. The site of a graveyard is thought to lie to the south of the mound where numerous graves were found when the land was under cultivation. To the west of the mound is a sub-rectangular enclosure which overlies the ridge and furrow and is interpreted as a later farmstead. To the east of the village, and now separated from it by the A1 trunk road, are part of the medieval open fields which once surrounded the whole village. They survive in the form of a series of furlongs or fields, each containing well preserved ridge and furrow cultivation. Other earthwork remains of the village survive to the west and are not included in the scheduling as their nature and date are not fully understood. A number of features are excluded from the scheduling; these are the telegraph poles and their supports, a concrete slab bridge across the Charlton Burn, post and wire fencing, a brick reservoir, stone field walls and track across the eastern area of ridge and furrow, and a water tank, although the ground beneath all these features is included.*

## 2.6 THE SITE

2.6.1. The Site lies to the west of the larger, eastern portion of the Scheduled Monument, to the east of the A1 (**Appendix B, Figure 2**; **Plate 3**). This part of the Scheduled Monument is thought to represent part of the medieval open field system.

2.6.2. The site walkover survey identified a north-south aligned linear earthwork running along the western edge of the Scheduled Monument boundary, extending into the Site at its southern end. The earthwork is potentially of geological origin; however, natural features are often incorporated in to the human landscape. The linear nature of this earthwork may have helped define a cultural boundary and it appears to have been incorporated in to the anthropogenic earthworks of the Scheduled Monument.

2.6.3. A series of parallel linear earthworks running east-west are located at the top of the linear earthwork. These are potentially the fragmented remains of ridge and furrow cultivation which have been preserved within the bank.


*Plate 3: Aerial Image of the Site (blue) the Scheduled Monument site of North Charlton Medieval village and open field system (NHLE 1018348; yellow)*

# 3 AIMS AND OBJECTIVES

3.1.1. The aim of the evaluation is to clarify the presence, nature, date and extent of any archaeological remains that might be present within the Site. Specifically, to identify if there are non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to the Scheduled Monument located immediately to the east, and should, therefore, be considered subject to the policies for designated heritage assets, in line with paragraph 5.124 of NPP NN (**Ref. 1**). This is for the purposes of informing the DCO application and an appropriate mitigation strategy for any significant archaeological remains.

3.1.2. The objective of trial trench evaluation as defined by the Chartered Institute for Archaeologists (CIfA) is to 'determine, as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices' (**Ref. 6**). The results of the evaluation will inform an appropriate mitigation strategy for any archaeological remains, if required.

3.1.3. This is further explained as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site…. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate.'

3.1.4. In respect of the archaeological research objectives specific to the Site and based on the archaeological potential as identified by the geophysical survey (**Ref. 5**), the HEDBA (**Ref. 2**), and from the walkover survey, the aims of the evaluation are summarised as follows:

- Evaluate whether the linear earthwork which extends north-south through the Site and Scheduled Monument is a geological feature or of archaeological origin;
- Evaluate whether the series of smaller east-west earthworks on the top of the linear earthwork are of archaeological origin;
- Where any of the earthworks are proven to be of archaeological origin, what are their date and function;
- Confirm the presence of, extent, nature and date of any buried archaeological features to the west of the Scheduled Monument and east of the A1;
- Establish the level of disturbance resulting from the construction of the A1 in the area, and;
- Establish if there are any remain of Medieval date, associated with the Deserted Medieval Village.

# 4 METHODOLOGY

## 4.1 GENERAL REQUIREMENTS

4.1.1. The archaeological evaluation will be carried out by a suitably qualified archaeological contractor, as defined by the Chartered Institute for Archaeologists' (CIfA) Code of Conduct and in the CIfA Standard and Guidance for an Archaeological Field Evaluation (**Ref. 6**). They would be required to prepare a detailed method statement (see below) which would set out how the evaluation would be undertaken. The archaeological contractor will supply a suitably qualified and experienced team of archaeologists to carry out the investigation. The archaeological contractor will have demonstrable experience of working on similar projects and with comparable archaeological remains.

4.1.2. The evaluation would be monitored by WSP, NCC and Historic England.

4.1.3. All work undertaken will conform to Historic England's Management of Research Projects in the Historic Environment (**Ref. 7**), the CIfA Code of Conduct, the CIfA Standard and Guidance for an Archaeological Field Evaluation (**Ref. 6**) and other relevant CIfA Standards and Guidance documents (**Refs 7, 8** and **9**).

**DETAILED METHOD STATEMENT**

4.1.4. The archaeological contractor will prepare a Method Statement for the archaeological evaluation in response to this WSI. The Method Statement will set out how the trial trenching will be delivered. It will include detail of the archaeological contractor's staff, programme, contingencies and specialists. The contractor's Method Statement should conform to the outline in MoRPHE Project Planning Note 3: Archaeological Excavation (**Ref. 7**) and would contain information on the following:

- The size and qualification of the work force including names and experience of key personnel.
- Details of staffing levels and the number of person days to be spent on each specific task.
- Details of specialists, including qualifications, who are likely to have input into the Scheme. Whether they are in-house or contracted in.
- Details of the recording system for fieldwork and post-excavation analysis.
- A timetable covering the whole project from setting up on site through report writing to deposition of the archive, including suitable allowance for bad weather or other unforeseen circumstances, the latter must be clearly indicated.

4.1.5. It is recommended that the archaeological contractor undertakes a walkover survey as part of the preparation of the Method Statement to review the suitability of the proposed trench locations (**Appendix 2**, **Figure 2**), review any on-site constraints and to determine appropriate plant, access points and location of a temporary welfare unit.

4.1.6. The archaeological contractor would be required to request up-to-date details of any buried utilities within the Scheme and to review all records of ecological constraints available.

**EXCAVATION CONSTRAINTS**

4.1.7. The archaeological contractor will need to mark out the boundary of the adjacent Scheduled Monument clearly and ensure there are no intrusive ground works within the Scheduled Monument. The archaeological contractor will ensure there is no machinery movement which would damage the Scheduled Monument.

4.1.8. The archaeological contractor will be responsible for locating any drainage pipes, service pipes, cables etc., which may cross the area of excavation, and for taking the necessary measures to avoid disturbing such services. It will be the responsibility of the archaeological contractor to address the requirements of any other constraints, which may include Tree Preservation Orders, public rights of way, contaminated land, areas of ecological interest and the habitats of protected species.

**Confirmation of Adherence to Specification**

4.1.9. Prior to the commencement of any work, the archaeological contractor must confirm adherence to this WSI in writing to WSP and NCC, or state (with reasons) any proposals to vary the WSI. Should the contractor wish to vary the specification, then written confirmation of the agreement with WSP and the NCC to any variations is required prior to work commencing. Unauthorised variations are made at the sole risk of the contractor.

**Documentary Research**

4.1.10. As part of the Scheme, a Historic Environment Desk-Based Assessment (HEDBA) of the site is being prepared (**Ref. 2**). The HEDBA will be made available to the archaeological contractor to provide an overview of the archaeological/historical background of the site and its environs. In addition to providing a knowledge base for the work in hand, the results of this assessment may be incorporated into the contractor's report where they are considered to contribute to that report, but any extraneous material should be omitted.

## 4.2 FIELDWORK METHODOLOGY

4.2.1. The archaeological evaluation will involve the hand excavation of three 1m by 1m test pits located on the earthwork remains at the southern end of the Site, and the mechanical excavation of four trial trenches (**Appendix B**, **Figure 2**), measuring 30m length and 1.8 m in width, located parallel to the existing A1. Together, these will provide a 4% sample of the Site.

4.2.2. All excavation will be outside the bounds of the Scheduled Monument. The test pits will be positioned to examine the relationship between the north/south earthwork and the east/west earthworks that cross it with the aim of establishing either a geological or anthropogenic origin for the features.

4.2.3. A proposed test pit and trial trench location plan is provided in **Appendix B Figure 2**. The location of a test pits is indicative only and will require locating a suitable position to ensure the research aims and objectives are met. The trial trenches have been positioned to avoid

any obvious obstructions, but all locations will need to be reviewed as part of the preparation of the Method Statement and, where necessary, repositioned.

4.2.4. The test pits will be excavated by hand. Topsoil and subsoil deposits will be stored separately and scanned for artefacts. The excavation will cease at either the surface of the natural geology or at the first archaeological horizon. Any features of potential archaeological origin will be examined through hand excavation.

4.2.5. The trial trenching will be undertaken using a suitable mechanical excavator fitted with a toothless 1.8 m (minimum) ditching bucket operating under archaeological supervision. Excavated material will be stored at least 1 m from the edge of the area of excavation. Topsoil and subsoil deposits will be stored separately and scanned for artefacts.

4.2.6. Mechanical excavation will cease at either the surface of the natural geology or at the first archaeological horizon. Any features of potential archaeological origin will be examined through hand excavation. The archaeological contractor will ensure that sufficient time is allowed to thoroughly investigate and record all archaeological deposits encountered.

4.2.7. The test pits and trial trenches will be located and marked out by the archaeological fieldwork contractor surveyor and tied to the National Grid.

4.2.8. Based on the predicted depth of deposits, it is assumed that the trenches will be no more than 1.2 m deep. This is sufficiently deep to reach the underlying geology and any archaeological features cut into it. Shoring or stepping the sides is not, therefore, required.

4.2.9. A contingency requirement is in place should there be issues which can be resolved by the expansion of existing trenches or the provision of additional trenching. Up to 10 linear metres of additional trenching (1.8m in width) should be sufficient with the understanding that unless small-scale expansion of the trench, the contingency will only be implemented with the agreement of WSP and NCC Conservation Team.

4.2.10. In the event that any archaeological deposits or features of high significance or sensitivity are encountered during the works, the excavations must be halted and no further ground disturbance may occur at that location until the Client, WSP and the NCC have been contacted.

## 4.3 HAND EXCAVATION

4.3.1. All excavations will be recorded according to the normal principles of stratigraphic excavation. The stratigraphy of each trench is to be recorded, from the modern ground surface down to natural deposits, even if no archaeological deposits have been identified.

4.3.2. All archaeological deposits, features and finds will be recorded according to accepted professional standards (see references section) and in line with the archaeological contractor's established recording systems. The recording system employed will be approved by the NCC prior to the works commencing.

4.3.3. Hand excavation of identified remains will consist of a minimum of:

- Linear boundary features not associated with settlement will be sufficiently sampled to allow for informed interpretation of their date and function. Each section should be at least 1 m wide and, where possible, sections will be located and recorded adjacent to the trench edge. All intersections will be investigated to determine the relationship(s) between the component features.
- All termini will be investigated. Care will be taken to note the stratigraphic position of any dateable artefacts recovered. If, after hand excavation, no dateable finds are recovered from large or extensive features then up to 100% will be excavated.
- Other linear and discrete features: all stake-holes, post-holes, pits, ring ditches, kilns, and other structural/funerary/industrial features will be 50% excavated. All intersections will be investigated to determine the relationship(s) between the component features. Where possible, sections will be located and recorded adjacent to the trench edge.
- Built structures: walls, floors etc. will be excavated sufficient to establish their form, phasing and construction techniques. All intersections will be investigated to determine the relationship(s) between the component features.

4.3.4. Excavation must not compromise the integrity of the archaeological record. Investigation should be undertaken in such a way as to allow for the protection of the deposits through the application of mitigation procedures or through the opportunity for better excavation under the conditions pertaining to full investigation of a larger area.

4.3.5. Section drawings (at a minimum scale of 1:20) must include heights aOD. Plans (at a minimum scale of 1:50) must include aOD spot heights for all principal strata and any features. All site drawings will be completed on plastic drafting film.

4.3.6. The actual areas of excavation and all archaeological (and possibly archaeological) features should be accurately located on a trench plan and recorded by photographs, scale drawings and written descriptions sufficient to permit the preparation of a detailed archive and report on the material. The trench location, as excavated, will be accurately surveyed using industry standard GPS equipment with sub one-centimetre accuracy, tied into the O.S. National Grid and located on an up-to-date 1:1250 O.S. map base.

4.3.7. A site diary, comprising a description and discussion of the archaeology, is to be maintained on a daily basis.

4.3.8. A ‘Harris Matrix’ stratification diagram will be used to record all stratigraphic relationships on the site. Spot dating should be incorporated where applicable.

4.3.9. The test pits and trial trenches will not be backfilled before they have been inspected by NCC or the agreement of that Officer has otherwise been obtained for the backfilling of specific trenches.

**Photography**

4.3.10. A full and detailed photographic record of individual contexts will be maintained and similarly general views from standard view points of the overall site at all stages of the excavation will be generated. Photography will be undertaken using high-resolution digital cameras (no

less than 10 megapixels). Photograph records will be maintained on index pro-forma sheets.

4.3.11. Images may be captured in RAW format, but archiving should follow the guidance given by Historic England (**Ref. 10**) in Digital Image Capture and File Storage: Guidelines for Best Practice. Digital images will be archived in both a JPEG and TIFF formats. The latter as 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 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 organisation taking the photograph.

## 4.4 ARTEFACTS AND ENVIRONMENTAL SAMPLES

### Artefacts

4.4.1. All recovery, retention and treatment of finds and samples will be carried out mindful of the overall purpose of the exercise, i.e. to evaluate for further decision making. To this end, all artefactual and ecofactual material will be reviewed for its capability to inform the evaluation report.

4.4.2. Identified archaeological finds and artefacts will be carefully recovered by hand and bagged or boxed according to the type of artefact (i.e. pottery, ceramic building material, bone, worked flint, metal) archaeological context from which they came, with a label indicating the site code, find type and context reference number). Particularly notable artefacts will be recorded as a ‘registered’ or ‘small’ find and recorded three dimensionally with Ordnance Datum levels. This will include in situ prehistoric worked flint.

4.4.3. Initial conservation and storage will be in a proper manner and to standards set out in First Aid for Finds (**Ref. 11**) and the CIfA 'Standard and Guidance for the collection, documentation, conservation and research of archaeological materials' (**Ref. 8**). If necessary, an appropriately qualified and experienced archaeological conservator will be appointed to advise and assist in the lifting of fragile finds of significance and or value and to arrange for the X-raying and investigative conservation of objects as may be necessary.

4.4.4. Certain classes of bulk material, i.e. post-medieval pottery and building material may be discarded if there is a considerable quantity (more than a single standard archive box of c. 0.016 m²), after recording with a representative sample, unless associated with industrial activity which requires post-excavation analysis of the full sample.

4.4.5. All pottery, bone and worked flint will be washed and then marked in accordance with the project archive repository guidelines. Most building material and burnt flint (not including significant diagnostic material) will be identified, counted, weighed and discarded. Samples will be retained as appropriate. The finds identification and specialist work will be undertaken by the relevant finds specialists agreed with NCC to assess the date range of the assemblage. With particular reference to pottery, use relevant county or region-specific

type series for identification and dating, where available. This evidence will be used to characterise the site, and to establish the potential for all categories of finds should further archaeological work be necessary. Records of artefact assemblages will clearly state how they were recovered, sub-sampled and processed. Consideration will be given for donation of appropriate artefacts to type series reference collections.

**Treasure**

4.4.6. Any artefacts that fall under the statutory definition of Treasure (as defined by the Treasure Act of 1996 and its revision of 2002) will be reported immediately to WSP, the NCC, the relevant Coroner's Office, the Finds Liaison Officer (FLO) and the landowner. A Treasure receipt must be completed, and a report submitted to the Coroner's Office and the FLO within 14 days of understanding the find is Treasure. Failure to report within 14 days is a criminal offence.

**Human Remains**

4.4.7. If human remains are encountered WSP, NCC and the local Coroner will be informed immediately. Human remains should be left in situ and only removed if absolutely necessary. Where excavation of human remains is unavoidable, it will be undertaken following the provisions of the Coroners Unit in the Ministry of Justice and relative professional guidelines. It is essential that the post-excavation assessment of excavated human remains contains an analysis of the material and a statement for the final deposition of the assemblage. The qualified statement must address future research potential, where applicable, and the options for reburial.

**Environmental Samples**

4.4.8. If archaeological deposits, which may have environmental potential are identified, a programme of environmental sampling will be initiated. A range of samples will be undertaken from dated and undated deposits and features. The sampling strategy will follow the Historic England environmental sampling guidelines outlined in Environmental Archaeology, A guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation (**Ref. 12**).

4.4.9. Secure and phased deposits, especially those related to settlement activity and/or structures will be considered for sampling for the recovery of charred plant remains, charcoal and mineralised remains. Any cremation-related deposits will be sampled appropriately for the recovery of cremated human bone and charred remains. If any evidence of in situ metal working is found, suitable samples for the recovery of slag and hammer scale will be taken.

4.4.10. Where sealed waterlogged deposits are encountered, samples for the recovery of waterlogged remains, insects, molluscs and pollen, as well as any charred remains, will be considered. The taking of sequences of samples for the recovery of molluscs and/or waterlogged remains will be considered through any suitable deposits such as deep enclosure ditches, barrow ditches, palaeo-channels, or buried soils. Monolith samples will

also be taken from this kind of deposit as appropriate to allow soil and sediment description/interpretation as well as sub-sampling for pollen and other micro/macrofossils such as diatoms, foraminifera and ostracods.

4.4.11. For remains suspected to be of Neolithic to Romano-British, the use of multiple radiocarbon dates should be applied and where possible samples should be taken from contexts with stratigraphic relationships to allow the use of Bayesian calibration of dates, in accordance with the North-East Regional Research Framework for the Historic Environment (**Ref. 13,** p.136). The need for any more specialist samples, such as Optically Stimulated Luminescence (OSL), archaeomagnetic dating and dendrochronology will be evaluated and will be taken under the direction of the relevant specialist.

4.4.12. The strategy for environmental sampling must be outlined in the archaeological contractor's method statement and will be subject to variation as appears necessary during the evaluation. Variations to the strategy will be made following consultation with NCC, WSP and the Historic England Regional Science Advisor (Don O'Meara 01912691250 07824529245) or the project's palaeoenvironmentalist.

4.4.13. A particular aim of the archaeological work is to ascertain whether or not the north/south earthwork and the east/west earthworks that cross it are natural features or anthropogenic. Provision should be made for a suitably experienced geo-archaeologist or soil scientist to attend site should any uncertainty arise regarding the origin of the features.

**Metal Detecting**

4.4.14. Spoil heaps are to 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 (if necessary, operating under the supervision of the contracting archaeologist). Modern artefacts are to be noted but not retained (19th-century material and earlier should be retained.) Artefacts recovered by metal detecting should be clearly identified in the final report.

If a non-professional archaeologist is to be used to carry out the metal-detecting, a formal agreement of their position as a sub-contractor working under direction must be agreed in advance of their use on site. This formal agreement will apply whether they are paid or not.

# 5 REPORTING

## 5.1 GENERAL REQUIREMENTS

5.1.1. A report on the fieldwork and archive will be completed and made available within six weeks of the completion of fieldwork. The report will describe the methods employed and its conclusions will include a clear statement of the archaeological value of the results, and their significance. The report will conform to the standards set out in the CIfA Standard and Guidance for Archaeological Field Evaluation (**Ref. 6**) and must contain sufficient detail to enable the results to be interpreted without recourse to the site archive. It will include tabulations of contexts and finds by context. It will also include a non-technical summary of the project and its results.

5.1.2. The findings of the fieldwork will be related to the relevant known archaeological and historical information held by the Northumberland HER and will be related to the relevant sections of the regional research strategy and agenda as set out in the NERFF (**Ref. 13**)

5.1.3. Reporting on ceramic artefacts and pottery should follow the guidance given in 'A Standard for Pottery Studies in Archaeology' (**Ref. 14**) and endorsed by the Prehistoric Ceramics Research Group; the Study Group for Roman Pottery & the Medieval Pottery Research Group and the relevant sections of the NERFF (**Ref. 13**).

5.1.4. In the first instance, the archaeological contractor will submit a digital copy of the draft report in .docx format to WSP for review and comment.

5.1.5. Following any amendment required by WSP, the draft report will be submitted by the archaeological contractor to NCC for approval. The report will be submitted in a timely manner to allow the DCO application to be determined in an informed manner. If specialist reports are outstanding, then a catalogue of finds with spot dates may be submitted with the report.

5.1.6. A fully indexed field archive shall be compiled consisting of all primary written documents, plans, sections, photographic negatives and a complete set of labelled photographic prints.

5.1.7. The full report, once accepted by NCC, will be supplied on the understanding that it will be added to the Northumberland HER and will become a public document after an appropriate period of time (generally six months). It will also form an Appendix to the ES as part of the DCO application.

## 5.2 REPORT CONTENT

5.2.1. The report will include, as a minimum:

- A summary sheet providing the following information:
  - Site name and grid reference
  - Site activity (i.e. type of investigation)
  - Date and duration of project

- Contractor Site code
- Area of site
- Summary of results
- Monuments identified
- Location and reference of archive

¡ And the following main sections, as appropriate to results:

- Summary
- Site location
- Archaeological and historical background
- Methodology
- Description of results (including stratigraphic description, if necessary)
- Interpretation of the results in the appropriate context
- Summary of the archaeological potential of the Scheme and its immediate surrounding area
- Consideration of the significance of the findings on a local, regional and national basis
- Critical review of the effectiveness of the methodology
- References
- Appropriate photographs in colour
- Location Plan (no smaller than 1:10 000)
- Site layout plans on an OS base, with north point and scale with the location of trial pits/trenches
- Plans and sections of significant archaeological remains, as necessary, including Cardinal Points, Ordnance Datum, vertical and horizontal scales
- Site matrices where appropriate
- Specialist descriptions of artefacts and ecofacts as required
- Summary of the contents of the project archive and its location (including summary catalogues of finds)
- Photographic Register
- Copy of the OASIS record form.

## 5.3 PUBLICATION AND DISSEMINATION

5.3.1. In order to fulfil the DCO application, the results of the investigation will need to be published and disseminated at a level that is appropriate to the significance of the remains recorded.

5.3.2. Copies of the report should be deposited with the Northumberland Historic Environment Record (HER), on the understanding that it will be made available as a public document after an appropriate period (not exceeding 6 months from the completion of fieldwork); a further hard copy to be sent to the client. Electronic (PDF) copies of the report will also be provided alongside the hard copies.

5.3.3. A summary account of the work should be submitted to the editor of the local archaeological journal Archaeology Round-up and any relevant period journals (e.g. Medieval Archaeology, Proceedings of the Prehistoric Society) no later than March 31st of the year following completion of fieldwork.

5.3.4. Further publication may range from a 'grey literature' archaeological report, to a short journal article in local and period-based archaeological journals as appropriate (as above), to a full monograph (in the event that the evaluation resulted in further excavation). The level of dissemination would be determined in consultation with NCC.

5.3.5. In all cases a short summary of the results of the work will be submitted to the HER, and National Record for the Historic Environment (NHRE), as maintained by Historic England, via a standard OASIS archaeological report form. The archaeological contractor must, therefore, complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/

# 6 ARCHIVE

## 6.1 GENERAL REQUIREMENTS

6.1.1. All recovered artefacts are the property of the Landowner. WSP will provide the relevant contact details of the Landowner(s) to the archaeological contractor in order to commence the transfer title of artefacts so that the archive, including all artefacts, can be deposited with the Great North Museum in Newcastle.

6.1.2. The site archive will be assembled in accordance with Archaeological Archives: A Guide to Best Practice in Creation, Compilation, Transfer and Curation (**Ref. 15**) and the guidelines from the Great North Museum. It will also adhere to the recommendations in MoRPHE (**Ref. 7**), United Kingdom Institute for Conservation, 1990, Guidance for Archaeological Conservation Practice (**Ref. 16**), Standards in the Museum Care of Archaeological Collections (**Ref. 17**); and relevant CIfA Standards and Guidance (**Refs 7** and **8**).

6.1.3. The site archive will contain all the data collected during the fieldwork, including records and finds, and all reports. The archaeological contractor will ensure that the archive is quantified, ordered, indexed and internally consistent, and adequate resources will be provided to ensure that all records are checked. Archive consolidation will be undertaken immediately following the conclusion of fieldwork.

6.1.4. The archaeological contractor will ensure that the project is recorded on the OASIS database. All parts of the OASIS online form http://ads.ahds.ac.uk/project/oasis/ will be completed and a copy will be included in the final report and also with the site archive. A digital copy of the approved report will be uploaded to the OASIS website.

**Archive Deposition**

6.1.5. The museum for archiving is the Great North Museum in Newcastle, while the digital archive will be deposited with the Archaeology Data Service. An integrated project archive (including both artefacts/ecofacts and project documentation) should be prepared upon completion of the project. Provision should be made for the payment of a ‘deposit grant’ at the time of archive transfer towards the costs of archive curation in perpetuity. The rates and requirements currently employed by the nominated depositing museum for its archive store should be used for guidance.

# 7 OPERATIONAL FACTORS

## 7.1 PROJECT TIMETABLE

7.1.1. WSP will liaise with the archaeological contractor regarding access and the health and safety requirements in force on the site. Information will be provided to NCC and Historic England as relevant. A programme of works, monitoring, recording and access will be agreed by the archaeological contractor, WSP, NCC and Historic England before the project commences.

7.1.2. It is currently anticipated that the fieldwork will commence in July/August 2019 and will take five working days to complete. The preliminary results providing stratigraphic information and spot dates will be presented in a draft report within three weeks of completing the fieldwork. The final full report is required within 12 weeks of completion of the fieldwork.

7.1.3. WSP will be kept informed of progress by the archaeological contractor to allow for any monitoring visits by NCC and Historic England to be conducted during the fieldwork. One visit is anticipated once the test pits and trial trenches are opened.

## 7.2 MONITORING ARRANGEMENTS

7.2.1. WSP will monitor and assure all elements of the archaeological fieldwork and will ensure that the work is carried out in accordance with this WSI, professional standards and the requirements of NCC. Any variance in the scope of work shall be made by WSP in consultation with NCC and Historic England. Site visits by NCC will be subject to their standard charging strategy.

7.2.2. Any key decisions (such as excavation strategy or work scope changes) that are made on site shall be noted during the monitoring visits and communicated by WSP on behalf of Highways England to relevant parties. Visits by NCC and Historic England will be arranged so that they are satisfied that the works are being conducted to proper professional standards. Access is also to be afforded at any reasonable time to Historic England's Archaeological Science Advisor.

## 7.3 HEALTH AND SAFETY

7.3.1. All relevant health and safety regulations and codes of practice will be respected. WSP will provide the archaeological contractor with all known site constraints, such as areas of contamination, utilities and access limitations. The archaeological contractor will provide a Health and Safety Statement prior to the commencement of the archaeological investigation. All site procedures will be carried out in accordance with the guidance set out in the Health and Safety Manual compiled by the Federation of Archaeological Employers and Managers (FAME) and in accordance with current legislation which includes:

- The Health and Safety at Work Act (1974)
- Management of Health and Safety at Work Regulations (1999)
- The Construction (Design and Management) Regulations (2015)

- The Control of Asbestos Regulations (2006)
- Construction (Health, Safety and Welfare) Regulations (1996)
- The Health and Safety (Miscellaneous Amendments) Regulations (2002)
- The Control of Substances Hazardous to Health Regulations (2002)
- The Health and Safety (First-Aid) Regulations (1981)
- The Regulatory Reform (Fire Safety) Order (2005)
- The Provision and Use of Work Equipment Regulations (1998)
- Lifting Operations and Lifting Equipment Regulations (1998)

7.3.2. Prior to the start of the archaeological investigation, risk and method statements will be produced and submitted to WSP and Highways England. All staff involved or associated with the investigation will be provided with copies of the documents prior to the beginning of the works and they will be required to read them before commencing construction works.

7.3.3. The archaeological contractor will be responsible for the safeguarding of its staff, as far as reasonably practicable, and others who may be affected by the works on site.

7.3.4. WSP must be notified immediately of the nature and extent of any unexpected site hazards and the appropriate health and safety precautions required.

7.3.5. Personal Protective Equipment (PPE) will be worn by all staff as appropriate.

## 7.4 INSURANCE

7.4.1. Full details of the insurance and copies of certificates covering the archaeological contractor shall be supplied upon request.

## 7.5 POST-EXCAVATION DELIVERABLES

7.5.1. WSP will technically assure the deliverables conform to the format and scope agreed with NCC, and that the reporting is accurate and clear and with sound conclusions, and that it has been produced to professional standards and the requirements of NCC. This will be the case whether the agreed deliverables take the form of an archaeological report for the HER, journal article or monograph.

7.5.2. WSP will liaise with the archaeological fieldwork contractor to ensure that the work is carried out to an agreed delivery programme.

## 7.6 COPYRIGHT

7.6.1. Copyright will remain with the archaeological fieldwork contractor under the *Copyright, Designs and Patents Act 1988* with all rights reserved. An exclusive licence will be provided to the client, or their appointed representative, for use of all project records and reports in all matters directly relating to the project. The archaeological fieldwork contractor retains the right to be identified as the author of all project documentation and reports.

# Appendix A

REFERENCES

## PUBLISHED AND DOCUMENTARY SOURCES

Ref. 1. Department for Transport, 2014, National Policy Statement for National Networks,

Ref. 2. WSP, forthcoming, Historic Environmental Desk-Based Assessment: A1 in Northumberland Alnwick to Ellingham

Ref. 3. S Lewis,1848, 'Allostock - Alnwick', in A Topographical Dictionary of England, British History Online. Accessed via http://www.british-history.ac.uk/topographical-dict/england/pp39-44

Ref. 4. National Heritage Listed for England. Accessed via https://historicengland.org.uk/listing/the-list/

Ref. 5. SUMO, 2018, Geophysical Survey Report: A1 in Northumberland Alnwick to Ellingham.

Ref. 6. Chartered Institute for Archaeologists, 2014, *Standard and Guidance for an Archaeological Evaluation*

Ref. 7. Historic England, 2015, *Management of Research Projects in the Historic Environment (MoRPHE)*

Ref. 7. Chartered Institute for Archaeologists, 2014, *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*

Ref. 8. Chartered Institute for Archaeologists, 2014, *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*

Ref. 9. Chartered Institute for Archaeologists, 2014, *Standards and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment*

Ref. 10. Historic England, 2015, *Digital Image Capture and File Storage: Guidelines for Best Practice*

Ref. 11. Leigh D, Watkinson and Neal V 1998, *First Aid for Finds: Practical Guide for Archaeologists*

Ref. 12. Historic England, 2011, *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*

Ref. 13. Petts, D, and Gerrard, C. 2006. *Shared Visions: The North-East Regional Research Framework for the Historic Environment*, Durham County Council

Ref. 14. Prehistoric Ceramics Research Group Study Group for Roman Pottery Medieval Pottery Research Group, 2016, *A Standard for Pottery Studies in Archaeology*

Ref. 15. Archaeological Archive Forum, 2011, *Archaeological Archives: a guide to best practice in creation, compilation transfer and curation*

Ref. 16. United Kingdom Institute for Conservation, 1990, *Guidance for Archaeological Conservation Practice*

Ref. 17. Museums and Galleries Commission, 1992, *Standards in the Museum Care of Archaeological Collections*.

# Appendix B

FIGURES

Date Modified:

Drawn By:

File:

## Key

- Application Boundary
- Site Boundary
- Scheduled Monument

Middlemoor Farmhouse
Garden Cottage
Doxford Farm
Cottages
West Lodge
Coldharbour
B6347
Christon Bank Farm
Doxford Newhouses
Shipperton Burn
Edington Dean
West Lodge
East Linkhall
Kittycarter Burn
Embleton Burn
Newton Retreat
B1340
West Linkhall
A1
Patterson Cottage
B6347
Charlton Mires
Drythropple
Rock Moor Farm
Gallow Moor
Whinnyhill House
B1339
Gallowmoor
South Charlton
Rock Midstead
The Old House
B6341
Rock Lodge
Rock
South Charlton Farm
The Whinny
Jingling Burn
Stamford
B6341
Wisplaw
B1340
Gull Ha
A1
Green Seat House
Stamford Burn
Rennington
Church Road
Humbleheugh
Heiferlaw Bank
Rennington West Farm
The Farmhouse
Hinding Dean
Holywell Cottage
Heckley Fence
Renningtonmoor
Millway Loaning
The Lime
B6346
White House
Hocketwell
White House Woods
Chester Cottages
Hinding Lane
Broxfield
Friars Well Farm
Locking Dean
Heckley House
Moorhouse
Hulne Park
Hulne Abbey
Blackbog Burn
B6341
Heckley High House
Silvermoor
B6346
Smiley Lane
Loaning Head
River Aln
Smiley Lane Cottage
A1
Broom House
Brizlee Tower
Brizlee Hill
Park Farm
B1340
Denwick Burn
Abbeylands House
Denwick
Canongate
The Peth
A1
Waterside House

0 125250 500 750 1,000 Meters



623000.000000 622000.000000 621000.000000 620000.000000 619000.000000 618000.000000 617000.000000 616000.000000 615000.000000 614000.000000

416000.000000 417000.000000 418000.000000 419000.000000 420000.000000 421000.000000 422000.000000

wsp

TITLE:

A1 in Northumberland
Alnwick to Ellingham
North Charlton

FIGURE No:

DRAFT FOR COMMENT
Figure 1
Application Boundary

Date Modified:

Drawn By:

File:

**Key**

- Proposed Test Pit
- Proposed Trial Trenches
- Site Boundary
- Scheduled Monument
- Magnetic Disturbance
- Utility

622800.000000

622700.000000

622600.000000

416900.000000

417000.000000

417100.000000



0 5 10 20 30 40 Meters

wsp

TITLE:

A1 in Northumberland
Alnwick to Ellingham
North Charlton

FIGURE No:

DRAFT FOR COMMENT
Figure 2
Proposed Trial Trenches and
Test Pit Location

Three White Rose Office Park
Millshaw Park Lane
Leeds
LS11 0DL

# A1 ALNWICK TO ELLINGHAM IMPROVEMENTS SCHEME: NORTH CHARLTON (Area 1C)

## EVALUATION REPORT

**OCTOBER 2019**

PRE-CONSTRUCT ARCHAEOLOGY

# A1 Alnwick to Ellingham Improvements Scheme: North Charlton, Northumberland

**Site Code: NCN 19**

*Commissioning Client:*

**WSP**
**Three White Rose Office Park**
**Milshaw Park Lane**
**Leeds**
**LS11 0DL**

**Tel: 0113 395 6200**

**On behalf of:**

**Highways Agency**

*Contractor:*

**Pre-Construct Archaeology Limited**

**Durham Office**
**The Rope Works**
**Broadwood View**
**Chester-le-Street**
**County Durham**

**DH3 3AF**

**Tel: 0191 377 1111**

## *DOCUMENT VERIFICATION*

## A1 ALNWICK TO ELLINGHAM IMPROVEMENTS SCHEME: NORTH CHARLTON, NORTHUMBERLAND

## EVALUATION REPORT

| **Pre-Construct Archaeology Limited Quality Control** | |
|---|---|
| *Project Number* | K6240 |
| *Site Code* | NCN19 |
| *Report Number* | RN 13887 |

| *Task* | *Name* | *Date* |
|---|---|---|
| Text prepared by: | Scott Vance | October 2019 |
| Text checked by: | Aaron Goode | October 2019 |
| Graphics prepared by: | Diana Valk | October 2019 |
| Graphics checked by: | Ray Murphy | October 2019 |
| Manager sign-off: | Aaron Goode | October 2019 |

| *Revision No.* | *Date* | *Checked by* | *Approved by* |
|---|---|---|---|
| | | | |

**Pre-Construct Archaeology Limited**
**Durham Office**
**The Rope Works**
**Broadwood View**
**Chester-le-Street**
**County Durham**
**DH3 3AF**

## CONTENTS

## 1. NON-TECHNICAL SUMMARY

1.1 Pre-Construct Archaeology were commissioned by WSP, on behalf of Highways England, to undertake an archaeological evaluation of land along the proposed improvement scheme for the A1, Alnwick to Ellingham, Northumberland. The proposed scheme involves the duelling of a *c.* 8km stretch of the A1 between Denwick and North Charlton. The existing carriageway will form the new north bound carriageway and a new southern carriageway would be built to the east. Several areas have been identified along the route as being of potential archaeological interest.

1.2 The site was approximately 0.45 hectares in size and was located 10km north of Alnwick, to the east of the A1 at North Charlton, Northumberland (centred at National Grid Reference NU 17042 22685). The evaluation was required in accordance with the National Policy Statement for National Networks.

1.3 The proposed scheme would run immediately adjacent to the boundary of the North Charlton medieval village and open field system Scheduled Monument (List Entry 1018348). A walkover survey, undertaken by WSP, identified earthworks extending from the Scheduled Monument into the site which could be of archaeological or geological origin. There was also potential for buried archaeological remains to be present at the site.

1.4 Paragraph 5.124 of the National Planning Policy for National Networks state that "[non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments, should be considered subject to the polices for designated heritage assets". The aim of the evaluation was to establish if there were buried archaeological features within the site that are equivalent to those in the Scheduled Monument. The archaeological evaluation also aimed to establish whether the earthworks on site were archaeological or geological in origin.

1.5 A geophysical survey of the proposed scheme was undertaken between November 2018 and February 2019 (SUMO 2018). The survey identified no magnetic anomalies thought to represent archaeological remains.

1.6 The archaeological evaluation comprised four trenches (Trenches 1-4) and three test pits (Test Pit 1-3). The trenches were sited to establish the presence/absence of archaeological remains at the site that would relate to the adjacent Scheduled Monument. The test pits were sited to establish whether the north-south earthwork was of geological or archaeological origin (the east-west earthworks on top of the north-south earthwork did not extend into the proposed scheme).

1.7 Three phases of activity were encountered during the evaluation: Phase 1: superficial geology; Phase 2: undated deposits and Phase 3: Modern topsoil, intrusions and made ground. No features or deposits of archaeological significance were observed during the evaluation. The north-south earthwork appeared to be comprised of glacial sands and gravels and conceivably represented a geological moraine.

# 2. INTRODUCTION

## 2.1 Project Background

2.1.1 This report details the results of an archaeological evaluation undertaken at North Charlton, Northumberland in October 2019 (Figure 1 & 2). The archaeological investigation was commissioned by WSP on behalf of Highways England and was undertaken by Pre-Construct Archaeology Limited (PCA).

2.1.2 The proposed scheme would run immediately adjacent to the boundary of North Charlton medieval village and open field system Scheduled Monument (List Entry 1018348). The walkover survey, undertaking by WSP, identified earthworks extending from the Scheduled Monument into the site which could be of archaeological or geological origin. There was also potential for buried archaeological remains. Paragraph 5.124 of the National Planning Policy for National Networks state that "[non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments, should be considered subject to the polices for designated heritage assets". The aim of the evaluation was to establish if there were buried archaeological features within the site that are equivalent to those in the Scheduled Monument. The archaeological evaluation also aimed to establish whether the earthworks on site were archaeological or geological in origin.

2.1.3 A geophysical survey of the proposed scheme was undertaken between November 2018 and February 2019 (SUMO 2018). The survey identified no magnetic anomalies thought to represent archaeological remains.

2.1.4 The scope of works for the archaeological evaluation was set out in the WSI produced by WSP (WSP 2019). The aim of the evaluation was to clarify the presence, nature, date, extent and significance of any archaeological remains that might be present in the areas of proposed impact. The WSI was produced in consultation with Northumberland County Council Assistant County Archaeologist (NCC) and Historic England. Four trenches (Trenches 1 to 4) were mechanically excavated during this phase of archaeological work. Three hand excavated test pits (Test Pit 1-3) were also undertaken as part of the works to establish the origin of the north-south aligned earthwork that crossed the site.

2.1.5 The Online Access to the Index of Archaeological Investigation (OASIS) reference number of the project is preconst1-370226.

## 2.2 Site Location and Description

2.2.1 The site was approximately 0.45 hectares in size and was located 10km north of Alnwick, to the east of the A1 at North Charlton (centred at National Grid Reference NU 17042 22685; Figure 1 & 2). The Scheduled Monument of North Charlton Medieval village and open field system (List Entry 1018348) extends to the east and west of the site.

## 2.3 Geology and Topography

2.3.1 The solid geology underlying the site comprises Tyne Limestone Formation and limestone, sandstone, siltstone and mudstone of the Alston Formation, formed during the Carboniferous Period. The bedrock geology is overlaid by glaciofluvial deposits of sand and gravel, laid down during the Devensian Stage of the Quaternary Period (British Geological Survey website).

2.3.2 The site lies at a height of approximately 100m above Ordnance Datum (AOD) and the ground rises gradually from west to east, before rising sharply to form a linear bank which runs on an approximate north-south alignment. The earthwork is potentially of geological origin; however, natural features are often incorporated into the human landscape. The linear nature of this earthwork may have helped define a cultural boundary and it appears to have been incorporated into the anthropogenic earthworks of the Scheduled Monument. A series of parallel linear earthworks running east-west are located at the top of the linear earthworks. These are potentially the fragmented remains of ridge and furrow cultivation which have been preserved within the bank. None of the east-west aligned earthworks extended into the area of the proposed scheme.

## 2.4 Planning Background

2.4.1 The archaeological investigation was required, as part of the planning process (pre-determination), to inform the Local Planning Authority (LPA), Northumberland County Council of the character, date, extent and degree of survival of archaeological remains at the site.

2.4.2 A geophysical survey undertaken in 2018 (SUMO 2018) as part of the Development Consent Order (DCO) application identified potential buried archaeological remains within the Scheme which could represent remains within the Scheme which could be associated with the Scheduled Monument. Paragraph 5.124 of National Planning Policy for National Networks (Department for Transport 2014) states that “non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments, should be considered subject to the policies for designated heritage assets”. The aim of the evaluation was to establish if the geophysical anomalies do represent buried archaeological features and are equivalent to those in the Scheduled Monument.

2.4.3 A Written Scheme of Investigation (WSI) was produced by WSP (WSP 2019) prior to works commencing at the site.

## 2.5 Archaeological and Historical Background

*Information in this section is largely extracted from the WSP DBA (forthcoming) and the WSI (WSP 2019). The research and writing of those responsible is acknowledged. The assessment employed a 1km study area for designated heritage assets and one of 500m for non-designated heritage assets. The following section provides an overview of the assessment, presented by period.*

### Prehistoric

2.5.1 No evidence of Palaeolithic or Mesolithic activity was identified within the 500m study area around the scheme. Potential Neolithic activity is represented by the site of a Scheduled Monument bowl barrow (NHLE 1018499) 600m to the south of the site, although this funerary monument type was still in use during the Bronze Age. Two worked flints of either Neolithic or Bronze Age provenance were found at Charlton Mires 2km to the southeast of the proposed development.

2.5.2 Bronze Age activity is attested to by the site of two stone cists 300m to the southwest of North Charlton. The features were excavated prior to 1824 revealing an inhumation burial associated with a bronze, flat riveted knife/dagger. Ellsnook round barrow, typical of the Bronze Age, is located 4km to the south of site.

2.5.3 The Iron Age is represented by defended settlement sites. The Camp Plantation is located almost 900m to the northwest of the site. The Scheduled Monument (List Entry 1017955) comprises roughly triangular earthworks incorporating a raised natural feature. The Camp at West Linkhall (List Entry 1006500), located 1.3km south of the site, has never been intrusively investigated but it is considered to be of Iron Age date. A further possible camp represented by earthwork remains is located 750m south of the site, alongside Shipperton Burn (HER 5043).

### Romano-British

2.5.4 There is no evidence of Romano-British activity within the 1km study area around the Proposed Scheme.

### Early Medieval

2.5.5 Evidence of Early Medieval activity within the Proposed Scheme 1km study area is limited to place names. The settlement of Rock lies 4km to the southeast of site and its name is likely to be derived from the Old French words *roche* and *roke*, meaning ‘outcrops of limestone’. The place name of *Ealnwic* (now Alnwick) is of Saxon origin derived from its situation near the River Alne 10km to the south of site.

### Medieval

2.5.6 Following the Conquest, Alnwick Castle became the baronial residence of Ivo de Vescy, Lord of Alnwick until the castle was besieged by Malcolm II, King of Scotland in 1093. In 1135, Alnwick Castle was taken by David, King of Scotland, besieged by William in 1174, Robert Bruce in 1328 and again by the Scots in 1448. From the mid-15th century onwards, Alnwick was the seat of the Percy family (Lewis 1848).

2.5.7 The origins of the townships within the area surrounding the scheme can be traced back to the 13th century. The township of North Charlton, where the site was located, was originally held by the lords of Ditchburn, and in the 13th century was the property of Ralph Fitz Roger, followed by the Beaumont family in the 14th century until the 16th century.

2.5.8 Population numbers in the region were reduced by the combined impacts of the war with Scotland, (late 13th century to early 16th century), and also by the arrival of the Black Death in 14th century which wiped out a quarter of the population. These factors led to a decline in population and thus a shrinkage in settlements located throughout the area, including Heckley (HER 4430), Charlton Hall (HER 5054), Linkhall (HER 5055), Broxfield (HER 5650) and Denwick (HER 5711).

2.5.9 The largest is the Scheduled site of North Charlton medieval village and open field system (List Entry 1018348). The Scheduled site is aligned east/west and divided by low banks into small plots. To the east of the village, now separated from by the A1 trunk road are part of the medieval open fields which once surrounded the whole village. They survive in the form of a series of furlongs or fields, each containing well preserved ridge and furrow cultivation. The earthworks representing the remains of the North Charlton Medieval village and open field system was designated a Schedule Monument in 1998. The following is the asset's description from the National Heritage List:

***Reasons for Designation***

*Medieval rural settlements in England were marked by great regional diversity in form, size and type, and the protection of their archaeological remains needs to take these differences into account. To do this, England has been divided into three broad Provinces on the basis of each area's distinctive mixture of nucleated and dispersed settlements. These can be further divided into sub-Provinces and local regions, possessing characteristics which have gradually evolved during the last 1500 years or more. The Tweed local region includes the Kyloe Hills, the Till Valley and Milfield Plain, as well as the rolling ridges of the Tweed Valley proper. Its rectangular fields, low densities of dispersed farmsteads, tenant cottages and estate villages all signify agrarian improvement in the 18th and 19th centuries. Earthworks, usually in or near present villages, sometimes indicate the earlier medieval farming communities which have been replaced.*

*Medieval villages were organised agricultural communities, sited at the centre of a parish or township, that shared resources such as arable land, meadow and woodland. Village plans varied enormously, but when they survive as earthworks their most distinguishing features include roads and minor tracks, platforms on which stood houses and other buildings such as barns, enclosed crofts and small enclosed paddocks. They frequently included the parish church within their boundaries and, as part of the manorial system, most villages included one or more manorial centres which may also survive as visible remains as well as below ground deposits. In the central province of England, villages*

*were the most distinctive aspect of medieval life and their archaeological remains are one of the most important sources of understanding about rural life in the five or more centuries following the Norman Conquest. Medieval villages were supported by a communal system of agriculture based on large, unenclosed open arable fields. These large fields were subdivided into strips (known as lands) which were allocated to individual tenants. The cultivation of these strips with heavy ploughs pulled by oxen teams produced long, wide ridges, and the resultant 'ridge and furrow' where it survives is the most obvious physical indication of the open field system. Individual strips or lands were laid out in groups known as furlongs defined by terminal headlands at the plough turning-points and lateral grass balks. Furlongs were in turn grouped into large open fields. Well-preserved ridge and furrow, especially in its original context adjacent to village earthworks, is both an important source of information about medieval agrarian life and a distinctive contribution to the character of the historic landscape. It is usually now covered by the hedges or walls of subsequent field enclosure. Although the remains of North Charlton medieval village are partly built over, considerable areas survive and contain significant archaeological deposits. Together with the remains of its open field system, it will add greatly to our knowledge and understanding of medieval settlement and land use in the region.*

***Details***

*The monument includes part of the shrunken remains of the medieval village of North Charlton and its open field system, situated in the coastal plain of north Northumberland. The monument is divided into three areas. The township of North Charlton was held by the lords of Ditchburn and in the 13th century was the property of Ralph Fitz Roger. In 1296 a document records 12 inhabitants eligible to pay taxes. North Charlton passed to the Beaumont family in the early 14th century and, apart from a 20-year spell in the late 15th century, it remained in their hands until the early 16th century. A map of 1769 shows a two-row village at North Charlton. The village is aligned east-west and is divided by low banks into small plots with the remains of one building standing up to 0.4m high on the north side. To the south west of this building, across a slight hollow way, is a probable market cross consisting of a stone shaft 1.3m tall, set in a socket stone on a square base of three steps; a cross is referred to in a survey of 1578 as standing on South Row. The cross is Listed Grade II. The Charlton Burn separates the north side of the village from an area of ridge and furrow cultivation and a prominent mound called Castle Close. However, there is no evidence for there having been a castle at North Charlton and building foundations on top of the mound have been interpreted as those of the Chapel of St Giles. The foundations measure 15m by 8m with a structure 6m square attached to the north west side; the interior is slightly raised. The chapel is mentioned in documents in the mid-12th century and had fallen into ruin by the 14th century. Around the base of the mound is a stony bank up to 1m high. The site of a graveyard is thought to lie to the south of the mound where numerous graves were found when the land was under cultivation. To the*

*west of the mound is a sub-rectangular enclosure which overlies the ridge and furrow and is interpreted as a later farmstead. To the east of the village, and now separated from it by the A1 trunk road, are part of the medieval open fields which once surrounded the whole village. They survive in the form of a series of furlongs or fields, each containing well preserved ridge and furrow cultivation. Other earthwork remains of the village survive to the west and are not included in the scheduling as their nature and date are not fully understood. A number of features are excluded from the scheduling; these are the telegraph poles and their supports, a concrete slab bridge across the Charlton Burn, post and wire fencing, a brick reservoir, stone field walls and track across the eastern area of ridge and furrow, and a water tank, although the ground beneath all these features is included.*

2.5.10 The 15th century was more prosperous which led to many deserted villages being re-instated and an expansion of the rural hinterland surrounding them. During this time, existing defences at Alnwick castle were strengthened and a new type of building, the tower house, was introduced in many Northumberland villages as part of the Lord's residence. An example of this is found *c.* 3.5km south of the site, comprising the Scheduled and Grade I Listed Heiferlaw Tower House (List Entry 1014061 & 1304282). Located in a prominent position, the 15th century tower was built with intended views for the monks of Alnwick Abbey (*c.* 1km from the scheme) and is attributed to the abbot of Alnwick Abbey and the Percy family.

**Post-medieval**

2.5.11 Post-Medieval activity is represented by the Grade II Listed Malcolm's Cross (NHLE 1153333) dedicated to Malcolm III, King of Scotland (1058-1093), erected in 1774. The gradual industrialisation of the region is represented in the HEDBA study area by the Grade II listed assets of Barn and Engine House (NHLE 1041755) and Smithy (NHLE 1303729) at Broxfield Farm and limekilns to the north-west of Peppermoor (NHLE 1153931) and at Kiln plantation to the west of Rock (NHLE 1154647). The HER identified a mill at North Charlton (HER 25114) and several wells (HER 5037, 22425, 22429, 22431, 22433 and 22435).

**Modern**

2.5.12 Assets of the Modern era comprise World War commemoration monuments including the Grade II listed Denwick War Memorial (NHLE 1433767) and the South Charlton War Memorial (NHLE 1439802). Military activity during the Second World War is represented by pill boxes (HER 19936, HER 19874, HER 447) and a Scheduled Zero Station (NHLE 1014080), located within the Heiferlaw defended settlement. The underground station comprises three separate chambers with vertical access shaft and a cylindrical escape tunnel.

**Geophysical Survey**

2.5.13 A geophysical survey of the Scheme was undertaken between November 2018 and February 2019 (SUMO 2018). The survey of the site identified no magnetic anomalies thought to be associated with human activity.

# 3. PROJECT AIMS AND RESEARCH OBJECTIVES

## 3.1 Project Aims

3.1.1 The aim of the evaluation was to clarify the presence, nature, date and extent of any archaeological remains that might be present within the site. Specifically, to identify if there were non-designated heritage assets of archaeological interest that were of equivalent significance to the Scheduled Monument located immediately to the east, and should therefore be considered subject to the policies for designated heritage assets, in line with paragraph 5.124 of NPP NN (Department of Transport 2014). This was to inform the DCO application and an appropriate mitigation strategy for any significant archaeological remains.

3.1.2 The objective of trial trench evaluation as defined by the Chartered Institute for Archaeologists (CIfA) is to 'determine, as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices' (CIfA 2014a). The results of the evaluation will inform an appropriate mitigation strategy for any archaeological remains, if required.

## 3.2 Research Objectives

3.2.1 The project was undertaken with reference to the research framework set out in *Shared Visions: The North-East Regional Research Framework for the Historic Environment* (NERRF) (Petts and Gerrard 2006), which highlights the importance of research as a vital element of development-led archaeological work. By setting out key research priorities for all periods of the past, NERRF allows archaeological projects to be related to wider regional and national priorities for the study of archaeology and the historic environment.

3.2.2 The WSI set out the research aims of the works and are summarised as follows:

- Evaluate whether the linear earthwork which extends north-south through the site and Scheduled Monument is a geological feature or of archaeological origin;
- Evaluate whether the series of smaller east-west earthworks on the top of the linear earthwork are of archaeological origin;
- Where any of the earthworks are proven to be of archaeological origin, what are their date and function;
- Confirm the presence of, extent, nature and date of any buried archaeological features to the east of the Scheduled Monument and west of the A1;
- Establish the level of disturbance resulting from the construction of the A1 in the area;

- Establish if there are any remains of medieval date associated with the Deserted medieval village.

3.2.3 An appropriate level of reporting on the work was required, including, if necessary, full analysis and publication of any notable archaeological findings upon completion of the evaluation. Thus, the results of the work constitute the preservation by record of any archaeological remains encountered and subsequently removed during the course of works.

# 4. ARCHAEOLOGICAL METHODOLOGY

## 4.1 Fieldwork

4.1.1 The fieldwork was undertaken in compliance with the codes and practice of the Chartered Institute for Archaeologists and the relevant CIfA standard and guidance document (CIfA 2014 a & b). PCA is a CIFA 'Registered Organisation'. All fieldwork and post-excavation was carried out in accordance with the Yorkshire, the Humber & The North East: Regional Statement of Good Practice (SYAS 2011).

4.1.2 The project was managed in line with principles set out in Historic England's *'Management of Research Projects in the Historic Environment'* (MoRPHE) published in 2006.

4.1.3 All archaeological staff involved in the project were suitably qualified and experienced for their project roles. The project was overseen for PCA by Aaron Goode, Project Manager at PCA's Durham Office. All relevant Health and Safety legislation, regulations and codes of practice were respected. PCA's Health and Safety (H&S) Policy is the starting point for managing H&S at all locations where PCA carries out its operations.

4.1.4 The scope of the work for the archaeological evaluation was set out in a detailed Written Scheme of Investigation compiled by WSP (WSP 2019). The archaeological evaluation comprised the mechanical excavation of four trial trenches (Trench 1-4), measuring c. 30m in length and c. 1.8m wide and the hand excavation of three c. 1m x 1m test pits (Test Pit 1-3) located on the north-south earthwork at the southern end of the site (Figure 2). Together these provided a 4% sample of the site.

4.1.5 The trial trenches have been positioned to avoid any obvious obstructions and to provide good coverage of the site. The test pits were sited over the north-south aligned earthwork (the east-west aligned earthworks were outside the limits of the site).

4.1.6 The archaeological evaluation was carried out between the 7th to 11th October 2019 over four days and consisted of four c. 30m trenches and three hand-excavated test pits (Figure 2). Trenches and test pits were set-out using a Leica Viva Smart Rover Global Navigation Satellite System (GNSS), with pre-programmed co-ordinate data determined by an office-based CAD operative.

4.1.7 Ground level in the trenches was reduced using a tracked 6-tonne mechanical excavator utilising a toothless ditching bucket. Successive spits of no more than 100mm depth were removed until either the top of the first archaeological horizon or the top of superficial geological deposits was reached. All ground reduction was carried out under archaeological supervision.

4.1.8 The investigation of archaeological levels was by hand, with cleaning, examination and recording both in plan and in section, where appropriate. Investigations within the trenches followed the normal principles of stratigraphic excavation and were conducted in accordance

with the methodology set out in the field manual of PCA (PCA 2009) and the Museum of London Site Manual (Museum of London 1994).

4.1.9 Deposits and cut features were individually recorded on the *pro-forma* 'Trench Recording Sheet' and 'Context Recording Sheet'. All site records were marked with the unique-number NCN19 (site code).

4.1.10 The height of all principal strata and features was calculated in metres above Ordnance Datum (m AOD). A detailed photographic record of the evaluation was prepared using SLR digital photography. All detailed photographs included a legible graduated metric scale. The photographic record illustrated both in detail and general context archaeological exposures and specific features in all trenches.

### 4.2 Post-excavation

4.2.1 The stratigraphic data for the project comprises written and photographic records. A total of 22 archaeological contexts were defined within the four trenches and three test pits (Appendix 2). Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data. A written summary of the archaeological sequence was then compiled, as described in Section 5.

4.2.2 During the evaluation, no artefactual material was retained from the deposits encountered, as no archaeological deposits or features were noted.

4.2.3 The complete Site Archive, in this case comprising only the written, drawn and photographic records (including all material generated electronically during post-excavation) will be packaged for long term curation. In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document (Brown 2007) will be adhered to, in particular a well-established United Kingdom Institute for Conservation (UKIC) document (Walker, UKIC 1990) and the most recent CIfA publication relating to archiving (CIfA 2014c).

4.2.4 At the time of writing the Site Archive was housed at the Durham Office of PCA, The Rope Works, Broadwood View, Chester-le-Street, County Durham, DH3 3AF. When complete, the site Archive will be deposited at the Great North Museum, Newcastle-upon-Tyne, under the site code NCN19.

# 5. RESULTS: THE ARCHAEOLOGICAL SEQUENCE

*During the archaeological investigation, separate stratigraphic entities were assigned unique and individual context numbers, which are indicated in the following text as, for example [123]. The context numbers have been assigned per trench therefore contexts from Trench 1 are in the 100s and contexts from Trench 2 in the 200s etc. Test pit context numbers are in the 1000s. The archaeological sequence is described by placing stratigraphic sequences within broad phases, assigned on a site-wide basis in this case. An attempt has been made to add interpretation to the data and correlate these phases with recognised historical and geological periods. The figures can be found in Appendix 1 with the context index and stratigraphic matrix located in Appendix 2 and 3 respectively. A selection of plates can be found within Appendix 4. Trench 1 is shown within Plate 1, Trench 2 within Plate 2 and test pit phots from Plate 5.*

## 5.1 Phase 1: Superficial Geology

5.1.1 Phase 1 represents superficial geological deposits that were observed within all trenches and within Test Pit 2 and 3 (superficial geology was not encountered within TP1). The composition of the superficial geological deposits varied across the site. Within the trenches, geological material was comprised of light brownish grey silty sand [101] in Trench 1; mid greyish brown sandy clay [201] in Trench 2; light greyish yellow sand [301] in Trench 3 and mid greyish brown silty clay [402] in Trench 4.

5.1.2 Geological deposits were also encountered within Test Pits 2 and 3. These comprised mid reddish-brown sand [2003] in Test Pit 2 and layers of mid reddish-brown sand, mid reddish-brown clayey sand and light grey gravel [3003] in Test Pit 3. The presence of geological material in the two southern test pits proves that the north-south earthwork is conceivably a glacial moraine (the east-west earthworks on top lay outside the proposed scheme so could not be targeted). No geological material was observed within Test Pit 1 as the north-south moraine had been truncated/reworked within this area perhaps relating to past agricultural practices or construction work related to the A1 trunk road.

5.1.3 The table below summarises the depth below ground level and metres above Ordnance Datum (AOD) height of geological deposits within the trenches/test pits:

| No. | Context | Depth (below ground level) | m AOD | |
|---|---|---|---|---|
| | | | *Highest* | *Lowest* |
| Trench 1 | [101] | 0.32m | 101.92m | |
| Trench 2 | [201] | 0.34m | 101.66m (north) | 101.39m (south) |
| Trench 3 | [301] | 0.44m | 100.92m (north) | 100.75m (south) |
| Trench 4 | [402] | 0.41m | 100.46m (north) | 99.96m (south) |
| Test Pit 2 | [2003] | 0.67m | 102.20m | |
| Test Pit 3 | [3003] | 0.18m | 102.04m | |

*Summary of superficial geology depths and levels*

### 5.2 Phase 2: undated deposits

5.2.1 Phase 2 represents undated deposits noted within the southern end of Trench 4 and within Test Pits 1 and 2. Although no artefactual material was observed within any of the deposits so they are likely to be either late post-medieval or modern in origin; perhaps derived from agricultural practices or from the construction of the A1 trunk road. Within Trench 4 these deposits comprised dark greyish brown sandy clay [401] with frequent small sub-rounded pebbles that was recorded for a maximum distance of 4.13m north-south and extended to the limits of excavation at the southern end of the trench.

5.2.2 Several deposits were noted within Test Pit 1 that were attributed to this phase. These comprised light brownish grey clay and gravel [1002]; dark brownish grey sandy clay [1003]; light greyish brown clay with occasional fragments of stone and gravel [1004] and mid greyish brown silty sand [1005] with frequent inclusions of small pebbles to the limit of excavation at base, *c.* 1m below ground level. In Test Pit 2, an undated deposit comprising mid reddish-brown silty sand [2001] had inclusions of gravel and frequent large rounded stones.

5.2.3 The table below summarises the thickness and Ordnance Datum height of all undated deposits encountered during the scheme:

| No. | Context | Thickness | m AOD | |
|---|---|---|---|---|
| | | | *Highest* | *Lowest* |
| Trench 4 | [401] | 0.18m | 100.36m | |
| Test Pit 1 | [1002] | 0.13m | 100.85m | |
| | [1003] | 0.18m | 100.72m | |
| | [1004] | 0.07m | 100.54m | |
| | [1005] | 0.18m | 100.47m | |
| Test Pit 2 | [2001] | 0.49m | 102.69m | |

*Summary of undated deposits thickness and levels*

### 5.3 Phase 3: Modern deposits & intrusions

5.3.1 Phase 3 represents a modern intrusion recorded in Test Pit 3, as well as modern deposits and topsoil.

5.3.2 In Test Pit 3, a modern feature [3002] was noted. It was filled by loose sub rounded cobbles with a matrix of dark grey clayey sand [3001]. No finds were recovered from the fill; however, modern iron rebar was noted sticking out of the topsoil *c.* 2m to the north of the test pit. Conceivably this iron rebar was also within cut [3002] that was situated in a slight depression on top of the glacial moraine.

5.3.3 A modern deposit was also noted in Test Pit 1 that comprised mid greyish brown sandy clay. A fragment of clay tobacco pipe and modern machine pressed glass was also recovered

from this deposit. It perhaps represented some disturbance either by local farmers or spoil from the construction of the A1 trunk road.

5.3.4 Topsoil was encountered within all trench and test pit locations and comprised dark brownish grey sandy clay. The table below summarises the thickness and metres above Ordnance Datum height for topsoil within all areas:

| No. | Context | Thickness | m AOD | |
|---|---|---|---|---|
| | | | *Highest* | *Lowest* |
| Trench 1 | [100] | 0.32m | 102.24m (south) | 102.19m (north) |
| Trench 2 | [200] | 0.34m | 102.00m (north) | 101.72m (south) |
| Trench 3 | [300] | 0.44m | 101.39m (north) | 101.07m (south) |
| Trench 4 | [400] | 0.23m | 100.73m (north) | 100.54m (south) |
| Test Pit 1 | [1000] | 0.21m | 101.42m (south) | 101.36m (north) |
| Test Pit 2 | [2000] | 0.18m | 102.87m (south) | 102.85m (north) |
| Test Pit 3 | [3000] | 0.18m | 102.22m | |

*Summary of topsoil thickness and levels*

# 6. CONCLUSIONS AND RECOMMENDATIONS

## 6.1 Conclusions

6.1.1 The archaeological investigations comprised the excavation of four trenches and three test pits during the A1 Alnwick to Ellingham Road Improvements North Charlton scheme (Area 1C), Northumberland. Geological deposits, undated deposits as well as modern made ground and topsoil were encountered. This activity was assigned to three phases of activity:

- Phase 1: Superficial geological deposits comprising glaciofluvial deposits of clayey sand were encountered within all trenches, however it was only encountered within Test Pits 2 & 3;
- Phase 2: Undated deposits relating to either agricultural disturbance or from the construction of the A1 trunk road;
- Phase 3: Modern topsoil, deposits and a modern intrusion.

6.1.2 No features of archaeological significance were recorded within any of the evaluation trenches or test pits. The evaluation has established that the north-south earthwork crossing the southern part of the site was a glacial moraine due to the laminated sands and gravels observed within Test Pit 2. The north-western end of the moraine had been truncated and reworked either by former agricultural practices or during the construction of the A1 trunk road.

6.1.3 The east-west aligned earthworks on the top of the glacial moraine have conceivably been altered by past human activity however, none of these mounds lie within the proposed scheme and will be left *in situ* as part of the Scheduled Monument.

6.1.4 East-west aligned furrows can be seen on historic aerial photos of the site however, at some point in the 20th century these had all been ploughed out. Evidence of this was seen in Trenches 1-3 as north-south plough scars were noted in the bases of all trenches.

## 6.2 Recommendations

6.2.1 No further work is required on the information recovered during the evaluation, with the Site Archive (including this report), forming the permanent record of the strata encountered. A watching brief may be requested during the stripping of the site due to the close proximity to the Scheduled Monument of North Charlton medieval village and open field system. This is to be agreed between WSP and NCC.

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## 7.2 Online Sources

The **British Geological Survey** website: www.bgs.ac.uk. This was consulted for information regarding the geology of the study area.

# 8. ACKNOWLEDGEMENTS AND CREDITS

**Acknowledgements**

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**PCA Credits**

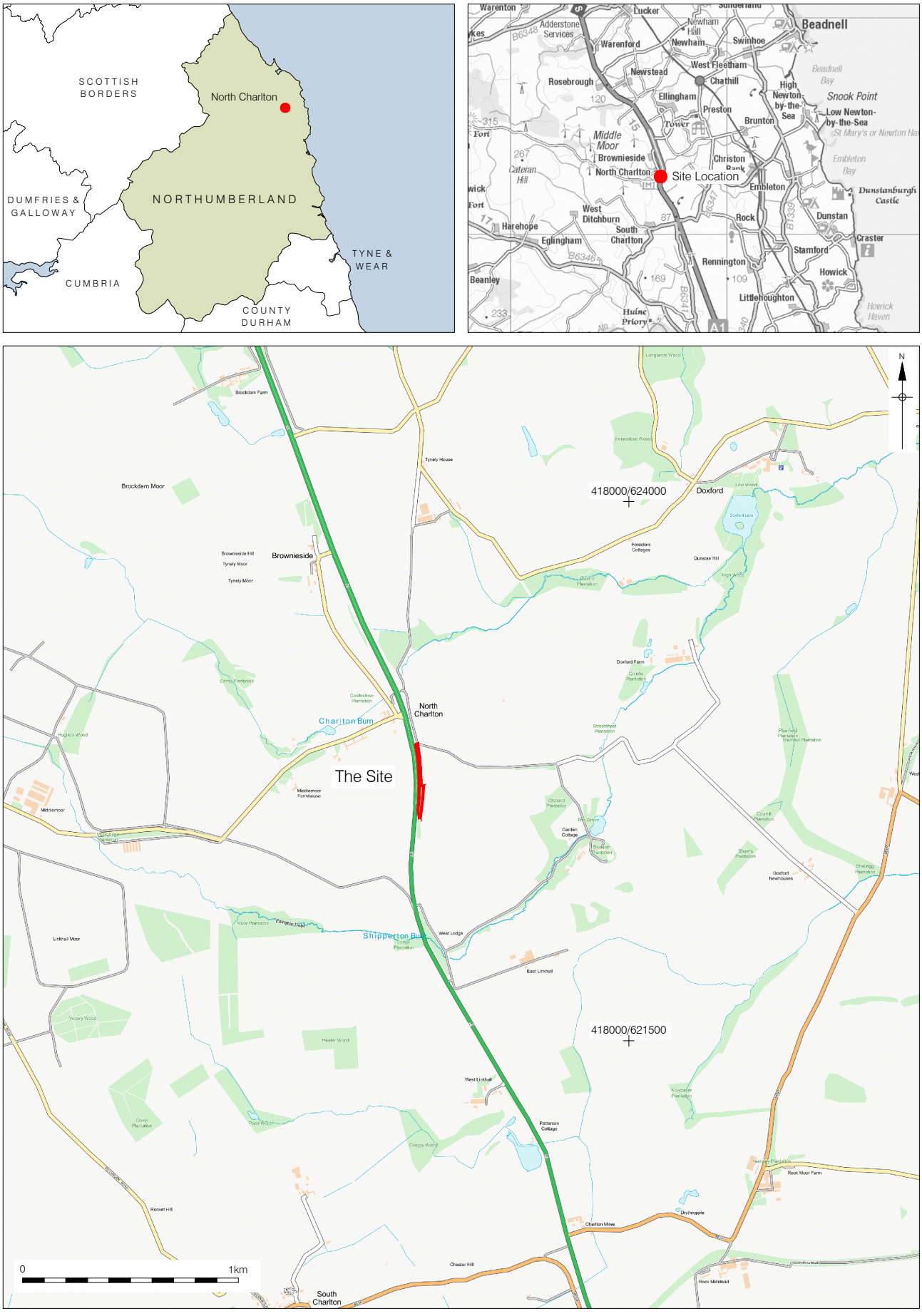
*Fieldwork:* Scott Vance (Supervisor) and Lucy Craggs

*Report:* Scott Vance

*Project Manager:* Aaron Goode

*CAD:* Diana Valk

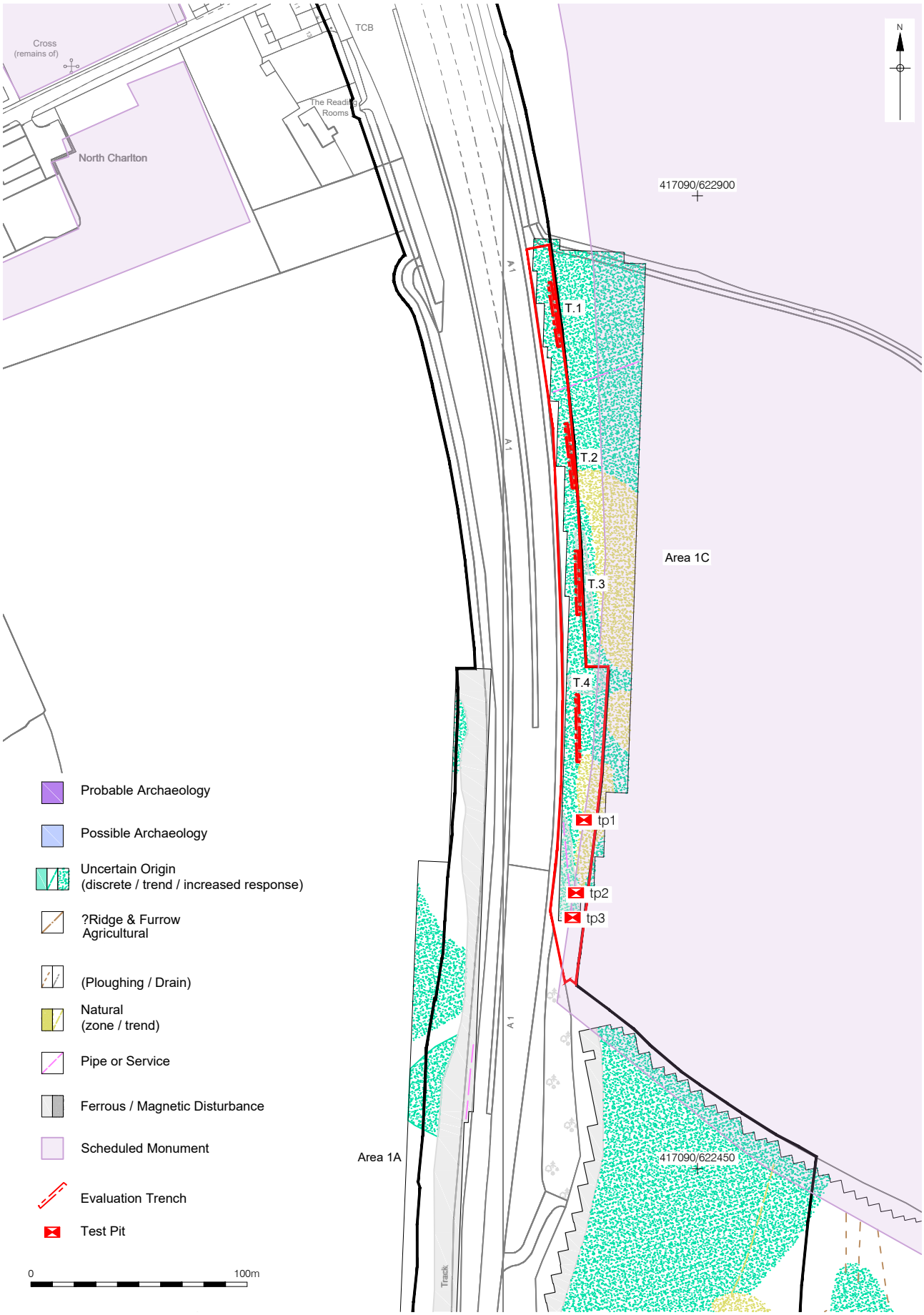
# APPENDIX 1: FIGURES





14/10/19 DV

Figure 1
Site Location
1:2,000,000, 1:250,000, 1:25,000 at A4




Base mapping supplied by the client

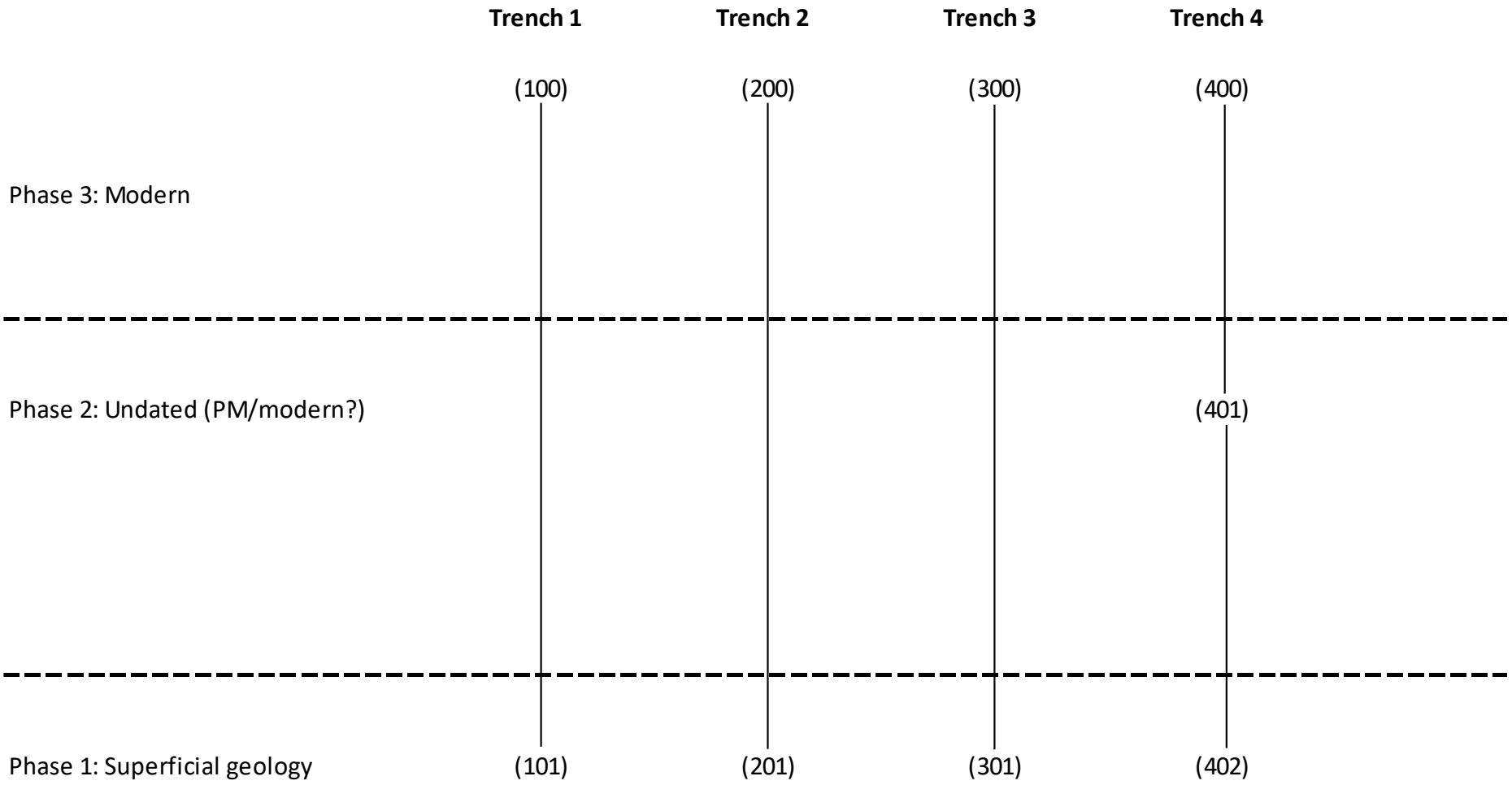
16/10/19 DV

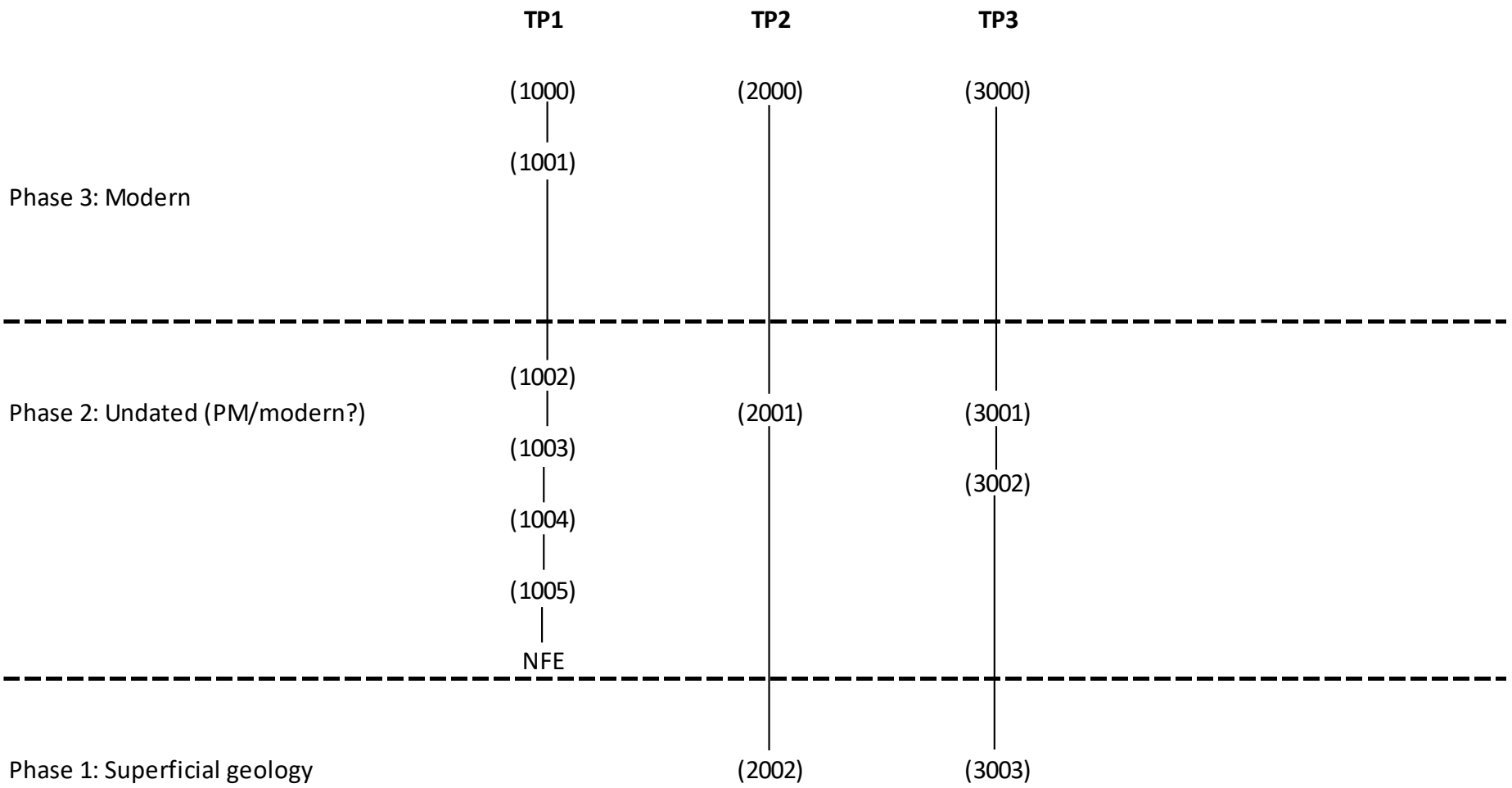
Figure 2
Evaluation and Test Pit Locations overlain on Geophysical Survey (Area 1C)
1:2,500 at A4

## APPENDIX 2: CONTEXT INDEX

| *Context* | *Phase* | *Type 1* | *Type 2* | *Fill of* | *Interpretation* |
|---|---|---|---|---|---|
| Trench 1 | | | | | |
| 100 | 3 | Deposit | Layer | | Topsoil |
| 101 | 1 | Deposit | Layer | | Superficial geology |
| Trench 2 | | | | | |
| 200 | 3 | Deposit | Layer | | Topsoil |
| 201 | 1 | Deposit | Layer | | Superficial geology |
| Trench 3 | | | | | |
| 300 | 3 | Deposit | Layer | | Topsoil |
| 301 | 1 | Deposit | Layer | | Superficial geology |
| Trench 4 | | | | | |
| 400 | 3 | Deposit | Layer | | Topsoil |
| 401 | 2 | Deposit | Layer | | Dark sandy clay |
| 402 | 1 | Deposit | Layer | | Superficial geology |
| Test Pit 1 | | | | | |
| 1000 | 3 | Deposit | Layer | | Topsoil |
| 1001 | 3 | Deposit | Layer | | Sandy clay and gravel |
| 1002 | 2 | Deposit | Layer | | Clay and gravel |
| 1003 | 2 | Deposit | Layer | | Sandy clay |
| 1004 | 2 | Deposit | Layer | | Redeposited clay and gravel |
| 1005 | 2 | Deposit | Layer | | Silty sand and gravel |
| Test Pit 2 | | | | | |
| 2000 | 3 | Deposit | Layer | | Topsoil |
| 2001 | 2 | Deposit | Layer | | Silty sand and gravel |
| 2003 | 1 | Deposit | Layer | | Superficial geology |
| Test Pit 3 | | | | | |
| 3000 | 3 | Deposit | Layer | | Topsoil |
| 3001 | 3 | Deposit | Fill | [3002] | Fill of modern intrusion [3002] |
| 3002 | 3 | Cut | Linear | | Modern intrusion |
| 3003 | 1 | Deposit | Layer | | Superficial geology |

## APPENDIX 3: STRATIGRAPHIC MATRIX




TP1
TP2
TP3
(1000)
(2000)
(3000)
(1001)
Phase 3: Modern
(1002)
Phase 2: Undated (PM/modern?)
(2001)
(3001)
(1003)
(3002)
(1004)
(1005)
NFE
Phase 1: Superficial geology
(2002)
(3003)

## APPENDIX 4: PHOTOGRAPHIC PLATES

*Plate 1: Trench 1: view north, scale: 2m*

*Plate 2: Trench 2: view north, scale: 2m*

*Plate 3: Trench 3: view north, scale: 2m*

*Plate 4: Trench 4: view south, scale: 2m*

*Plate 5: Test Pit 1: view north, scale: 1m*

*Plate 6: Test Pit 2: view west, scale: 0.5m*

*Plate 7: Test pit 3: view south, scale: 1m*

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