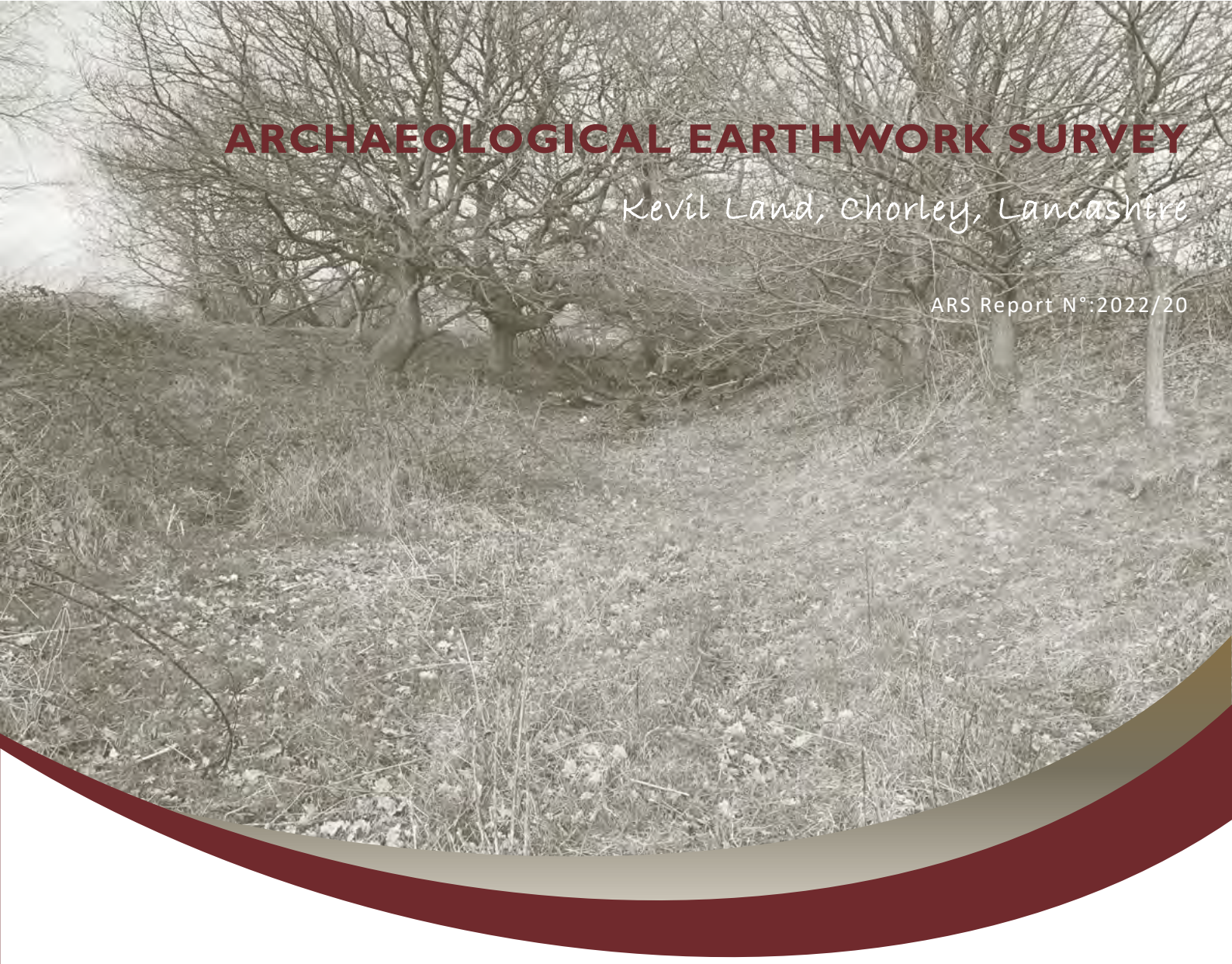

ARCHAEOLOGICAL EARTHWORK SURVEY

Kevil Land, Chorley, Lancashire

ARS Report N°:2022/20

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ARCHAEOLOGICAL EARTHWORK SURVEY: KEVIL LAND, CHORLEY, LANCASHIRE

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Prepared on behalf of:	Taylor Wimpey UK Limited
Date of compilation:	April 2022
Compiled by:	William Rigby ACIfA
Checked by:	Lucie McCarthy
Approved for issue by:	Lucie McCarthy
Planning Reference:	16/00804/FULMAJ & APP/D2320/W/20/3265785
Local Authority:	Chorley Council
Site central NGR:	SD 57858 14817

EXECUTIVE SUMMARY

Project Name:	Archaeological Earthwork Survey: Kevil Land, Chorley, Lancashire
Site Code:	KLC21
Planning Authority:	Chorley Council
Planning Reference:	16/00804/FULMAJ & APP/D2320/W/20/3265785
Location:	Kevil Land, Chorley
Parish:	Duxbury
Hard Geology:	Lower Coal Measures Formation – Mudstone, Siltstone and Sandstone
Superficial Geology:	Glaciofluvial Deposits of Devensian – Sand and Gravel
Soil Type:	Freely draining slightly acid sandy soils
NGR:	SD 57858 14817
Date of Fieldwork:	11th February 2022
Date of Report:	April 2022

Archaeological Research Services Ltd (ARS Ltd) was commissioned by Taylor Wimpey UK Limited to undertake a Level 2 Earthwork Survey at Kevil Land, Chorley, Lancashire. This was to record any earthwork features associated with Burgh Colliery before further archaeological fieldworks are carried out.

This archaeological earthwork walkover survey has identified six features, all are considered to be evidence for historical coal mining activity within the survey area. A large linear earthwork feature was identified to the north of the survey area and probably relates to an earthwork associated with the former tramway for Burgh Colliery. Directly to the south of the earthwork, a depression could similarly be a feature associated with the tramway, while embankments to the south of the survey area appear to be the remains of coal spoil heaps which have been levelled and stepped to create terraced areas. A mound to the south of the survey area, was surrounded by masonry rubble and cut stones which possibly supports that this feature relates to a field house or other structure associated with the colliery. While a further depression, to the east of the survey area shares a similar location to an area depicted as a pond on the Tithe Map for the Township of Duxbury.

The features identified by the earthwork survey form part of a wider historical context associated with the former Burgh Colliery. Therefore, the features recorded have the potential to not only increase our understanding the production process attached to 19th colliery extraction, but also in the origins and development of tramways and their interrelationship with associated colliery structures and the wider historical landscape

Further archaeological investigation will be necessary to fully understand the character of these features in the form of a strip, map and sample. .

CONTENTS

LIST OF FIGURES

LIST OF PHOTOGRAPHS

INTRODUCTION

1.1 Background and Scope of Work

A planning application (Ref: 16/00804/FULMAJ & APP/D2320/W/20/3265785) was submitted by Taylor Wimpey UK Limited for the erection of 201 dwellings, associated access, drainage and the provision of public open space and landscaping. This scheme of works part-discharges conditions pertinent to the planning permission (Ref: 16/00804/FULMAJ). A condition of the planning approval specifies that the following recommendation is required:

> *"**Condition**: No development shall take place until the applicant, or their agent or successors in title, has secured the implementation of a programme of archaeological work. This must be carried out in accordance with a written scheme of investigation, which shall first have been submitted to and agreed in writing by the Local Planning Authority.*
>
> ***Reason**: To ensure and safeguard the recording and inspection of matters of Archaeological/historical importance associated with the site.*
>
> ***Note**: The programme of archaeological work should include a documentary study and a topographic earthwork survey, followed with a strip map and record on the site of any buildings revealed by these investigations and conclude with the erection of an interpretation panel. This work should be carried out by an appropriately qualified and experienced professional archaeological contractor to the standards and guidance set out by the Chartered Institute for Archaeologists."*

Archaeological Research Services Ltd (ARS Ltd) was commissioned by Taylor Wimpey UK Limited to undertake a Level 2 Earthwork Survey at Kevil Land, Lower Burgh Way, Chorley (Figure 1), centred at NGR SD 57858 14817.

Works were undertaken in accordance with the Written Scheme of Investigation (Rigby 2021 - see Appendix IV) and took place on Friday 11th February 2022 in dry sunny weather conditions.

1.2 Site Location and Description

1.2.1 Kevil Land, Lower Burgh Way is located *c.* 3km to the south of Chorley town centre, Lancashire, occupying the southern edge of Chorley Moor. The site is bounded to the north by residential properties relating to Booth Avenue and Sampson Close, woodland to the east and west and further fields to the south. The topography of the PDA is sloped northeast to southwest, in the western half of the site boundary, from *c.*89m Ordnance Datum (aOD) and *c.*81.5 aOD, while the eastern half slopes from northeast *c.*91m aOD to west *c.*87m and south *c.*83m aOD. The site is centred at SD 57858 14817 (Figure 1).

1.2.2 Burgh Colliery Railway (PRN39906), a non-designated heritage asset recorded on the Lancashire Historic Environment Record as a former colliery tramway is located within the site boundary.

1.2.3 The area that required detail survey comprised a parcel of grassland pasture and woodland that surrounds earthwork features identified on LiDAR data and cross-referenced with the 1842 tithe map. The boundary of the earthwork survey is outlined in red on Figure 1.

1.3 Geology and Soils

1.3.1 The underlying solid geology of the survey area predominantly comprises Pennine Lower Coal Measures Formation - Mudstone, Siltstone and Sandstone with a seam of Lower Coal Measures Formation - Sandstone running on a southwest to northeast orientation in the eastern part of the site boundary (BGS 2022). The superficial deposits consist of interchanging areas of Glaciofluvial deposits of Devensian - Sand and Gravel and Till, Devensian - Diamicton from west to east (BGS 2022).

1.3.2 The soils of the PDA are classified as belonging Soil unit 8, '*slightly acid loamy and clayey soils with impeded drainage*' in the west, and Soil unit 10, '*freely draining slightly acid sandy soils*' in the east (Soilscapes 2022).

1.4 Archaeological and Historical Background

1.4.1 In the surroundings of the PDA, no substantial activity is recorded until the medieval period. Settlement activity is indicated from place-name evidence, with the historical parish of Duxbury being derived from the Anglo-Saxon word Burh, meaning fortified place, with the nomen Duc or Doewuc (Ekwall 1922, p128). Chorley is considered to be the combination of ceorl and leah, both Anglo-Saxon in origin, loosely translated as 'clearing among the woods belonging to a freeman' (Heyes 1994, p6).

1.4.1 A manor, first mention in 1227, and a corn mill are recorded at Duxbury. The water powered mill is first mentioned in 1354, although it has been suggested that it might be much earlier in date and continued in use until it was decommissioned in 1910 (Healy 2008, p6 & p21).

1.4.2 As noted in section 1.2.2, the PDA was the location of the Burgh Colliery and associated buildings and railway. Analysis of LiDAR data has identified possible earthwork features which collocates with the Burgh Colliery Railway depicted on the 1842 tithe map (Figure 4). This would indicate that the earthwork features identified are likely to relate to Burgh Colliery and Railway.

1.4.1 Burgh Colliery is believed to have been established in the 1820s and a lease from 1836 documents that Burgh Colliery was granted fourteen years to lay a railroad or tramway (DDRF/5/11). In 1842, James Anderton is recorded as the land owner and Peel Entwistle the occupier of land plots 69 (railway) and 165 (field houses and colliery grounds) depicted on 1842 tithe map (Figure 4). A newspaper cutting from 1846, in the London News, reported that an explosion occurred at Burgh Colliery, where eight people were killed (DDX519/140). A map analysis and regression of the PDA depicts Burgh Colliery and Railway on 1842 tithe mapping and 1844-1847 Ordnance Survey mapping. This mapping indicates that the railway bisected the PDA and associated colliery related structures were in close proximity to the railway within the site boundary. The Colliery and Railway was largely decommissioned by 1894, as stated above, and by 1908-1909 Ordnance Survey mapping portrays the Colliery as an Old Shaft and the Railway as an earthwork feature.

2 Aims And Objectives

2.1 Research Aims and Objectives

2.1.1 Relevant research topics identified in the *An Archaeological Research Framework for North-West England: Volume 2. Research Agenda and Strategy* (Brennand *et al.* 2007) include:

- Ind7.02: Undertake study or studies of the North West's tram systems focused on both the associated structures and their wider landscape impact .

2.1.2 Further relevant research topics identified in the *North West Region Updated Research Agenda* for these periods (Nevell 2021) are as follows:

- Ind94: How well studied are the origins and development of colliery tram systems and do we understand their significance.
- Ind91: How were transport infrastructures improved and how was this related to the developing urban and market hierarchy during the industrial period?
- Ind91: What impact did the regions early railway development have on the world?

2.2 Detailed Walkover Survey Aims and Objectives

Aims

- To 'ground-truth' the proposed survey area via implementation of a detailed walkover survey (See Figure 2), supplemented by a photographic record of the site, so that any subtleties within the construction of the features are fully recorded.
- Identify the presence/absence of archaeological features and deposits within the site.

Objectives

- Gather sufficient information to establish the character, extent, form, function and likely status of any surviving archaeological features.

3 Method Statement

3.1.1 The methodology for the detailed walkover survey is set out in detail in the Written Scheme of Investigation (Rigby 2022; Appendix IV).

3.2 Professional Standards

3.2.1 The detailed walkover survey was undertaken in accordance with the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (2019) and in accordance with *Historic England's Understanding the Archaeology of Landscapes: A Guide to Good Recording Practice (2017).*

3.3 Health and Safety

3.3.1 All works were undertaken in full compliance with the Health and Safety at Work Act 1974 and with the Management of Health and Safety Regulations 1992.

3.4 Methodology

3.4.1 Identified features were recorded using a global navigation satellite system. Where linear features were recorded, points were recorded at significant changes of direction or at appropriate intervals where no changes in alignment are identified. Detail was added to the hachured plan using measurements taken on-site by tape measure.

3.4.2 Baseline photographs to archaeological standards will be captured as part of this survey, and their position will be marked on a plan. An interpretation of the features identified and any relationships between them will be provided in addition to a full catalogue

3.5 Limitations

3.5.1 GPS accuracy was limited due to tree cover surrounding identified earthwork features, yet LiDAR data does cover the survey area, therefore, was used in conjunction with ground truthing to aid the production of this report.

4 Statement of Significance

4.1.1 The earthwork survey area has been identified to be the location of Burgh Colliery and Tramway (PRN39906), a non-designated heritage asset. Coal mining, in the Northwest of England, is a historically important industry for the surrounding area. Any remains of the tramway and associated colliery structures would have a shared *group* value as they are inextricably linked to each other. Furthermore, the colliery and tramway have *illustrative* and *historical evidential* value not only in understanding the production process attached to 19th colliery extraction, but also in the origins and development of tramways and their interrelationship with associated colliery structures and the wider historical landscape, therefore having both *local* and *regional* significance.

5 Detailed Walkover Survey

5.1 Introduction

5.1.1 An overall plan of the detailed walkover survey area is presented in Figure 2. A description table of the results of the identified features are present below in section 5.2. Plans and photographs of the detailed walkover survey as present in Appendix I and II. Additional digital photographs are contained in the project archive.

5.2 Results

5.2.1 Six archaeological features were surveyed at Kevil Land, Chorley during the course of the detailed walkover. These are tabulated in the results table below, along with the feature interpretation, in italics.

5.2.2 The heights in above Ordnance Datum (aOD) are provided in the table below along with the appropriate below-ground level (bgl) or above-ground level (agl) measurement in brackets.

Feature No.	Description	Length	Width	Depth to Base aOD (bgl)
1	Linear earthwork feature, with steep sloping earth banks creating a v shaped earthwork orientated north to south. The northern extent appeared to have been truncated and blocked, while the earthwork was approximately 8m wide to the north which increased to 28m to the south (Photographs 1-10). *Feature represents an earthwork feature relating to the former Burgh Colliery tramway and mine shaft.*	**102m**	**8m (north) to 28m (south)**	**89.91m (3m) at its south-western end, rising steadily to 88.08m (3.4m) at its north-eastern end**
2	Sub square depression and cut stone, with gently sloped convex sides, and a sub square base edged with a possibly in situ cut stone. The depression is subtle decreasing to approximately 0.1m bgl (Photographs 13-15). *Subtle sub square feature that could possibly relate to the Burgh Colliery tramway.*	**3.8m**	**3.5m**	**85.95m (0.1m bgl)**
3	Earthwork embankments, a series of mounds/embankments that have steep sloped sides which terminate onto levelled terraced areas to the south of the earthwork survey area. During the site walkover, an open section of the embankment appeared to evidence that they are constructed from coal spoil (Photographs 18-22). *Former coal spoil mounds that have been levelled and terraced.*	**62.5m**	**38.36m**	**86.86m to the north, decreasing to 84.42 to the south**
4	Sub rectangular depression, gently sloped towards a levelled sub rectangular base. *The 1842 Tithe Apportionments for the Township of Duxbury describe this area as ponds, with the depression possibly representing an infill former pond.*	**67m**	**17.7m**	**87.78m (0.3m bgl)**
5	Earthwork mound, surrounded by masonry rubble, concave sub rectangular mound with steep sloped edges (Photographs 24-29). *The 1842 Tithe Apportionments for the Township of Duxbury describe that this area formed part of grounds for the Colliery and Field Houses, therefore this mound could be related to a former field house or other structure associated with the Colliery.*	**5m**	**4.08m**	**87.78m (0.5m agl)**
6	Earthwork embankment comprising a steep slope to the south of the earthwork survey area. *Similar to Feature 3 it is considered likely that this embankment could represent further coal spoil which has been levelled creating a terrace area.*	**69.1m**	**6.89m**	**86.68m to the north decreasing to 82.06m to the south**

6 Discussion

6.1.1 Out of the six possible archaeological features identified during the earthwork survey, all are considered to be evidence of historical mining activity within the survey area. A large linear earthwork feature was identified to the north of the survey area which is v shaped in form and probably relates to an earthwork associated with the former tramway for Burgh Colliery. A depression, directly to the south of the earthwork, could similarly be a feature associated with the tramway, while embankments to the south of the survey area appear to be the remains of coal spoil heaps which have been levelled and stepped to create terraced areas. A mound to the south of the survey area, was surrounded by masonry rubble and cut stones which possibly supports that this feature relates to a field house (as described in the 1842 Tithe Apportionment) or other structure associated with the colliery. A further depression, to the east of the survey area shares a similar location to an area, depicted on the Tithe Map for the Township of Duxbury, annotated as a pond.

6.1.2 The features identified by the earthwork survey form part of a wider historical context associated with the former Burgh Colliery. Therefore, the features recorded have the potential to not only increase our understanding the production process attached to 19th colliery extraction, but also in the origins and development of tramways and their interrelationship with associated colliery structures and the wider historical landscape.

6.1.3 Further archaeological investigation will be necessary to fully understand the character of these features in the form of a strip, map and record.

7 Publicity, Confidentiality and Copyright

7.1.1 Any publicity will be handled by the client.

7.1.2 ARS Ltd will retain the copyright of all documentary, photographic and video material under the Copyright, Designs and Patent Act (1988).

8 Statement of Indemnity

8.1.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

9 Archive

9.1.1 One bound copy of the final report with a digital copy of the report in PDF/A format on disk will be deposited with the Lancashire HER. A copy of the report will be uploaded as part of the OASIS record (see below) for online access via the Archaeological Data Service.

10 Acknowledgements

10.1.1 ARS Ltd would like to thank Taylor Wimpey UK Limited for commissioning the work and allowing site access.

11 REFERENCES

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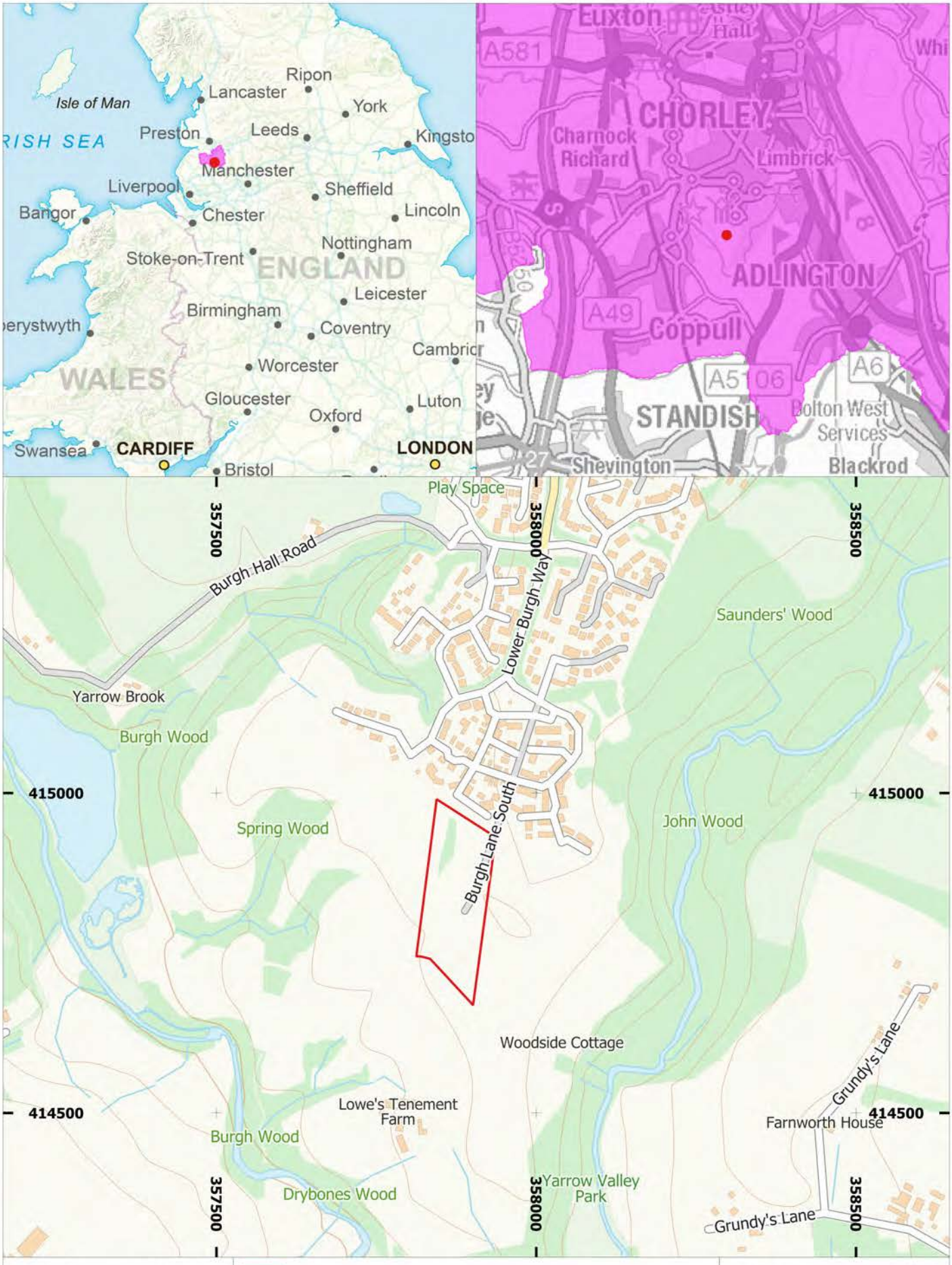
APPENDIX I FIGURES



Site name: Kevil Land, Chorley
Date: April 2022
Drawn by: WR
Scale: Varies

Site Boundary

Chorley District

N

Figure 1:
Site location

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Figure 2: Overall Plan of Identified Earthwork Features

Site Boundary
Identified Features

0 20 40 60 80 m

N

Site name: Kevil Land, Chorley
Date: April 2022
Drawn by: WR
Scale: 1:1,250 @ A3

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Figure 3: Photograph Locations

Site Boundary
Identified Features
Photograph Location

0 20 40 60 80 m

N

Site name: Kevil Land, Chorley
Date: April 2022
Drawn by: WR
Scale: 1:1,250 @ A3

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Figure 4: Identified Earthwork Features over 1842 Tithe Map of the Township of Duxbury

Site Boundary

Possible Earthwork Features

0 25 50 75 N 100 m

Site name:	Kevil Land, Chorley
Date:	April 2022
Drawn by:	WR
Scale:	1:1,250 @ A3

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Figure 5: Identified Earthwork Features over LiDAR data @ DTM 1m resolution Slope (north)

Site Boundary

Identified Features

Feature 1

Feature 2

0 10 20 30 40 m

N

Site name: Kevil Land, Chorley
Date: April 2022
Drawn by: WR
Scale: 1:600 @ A3

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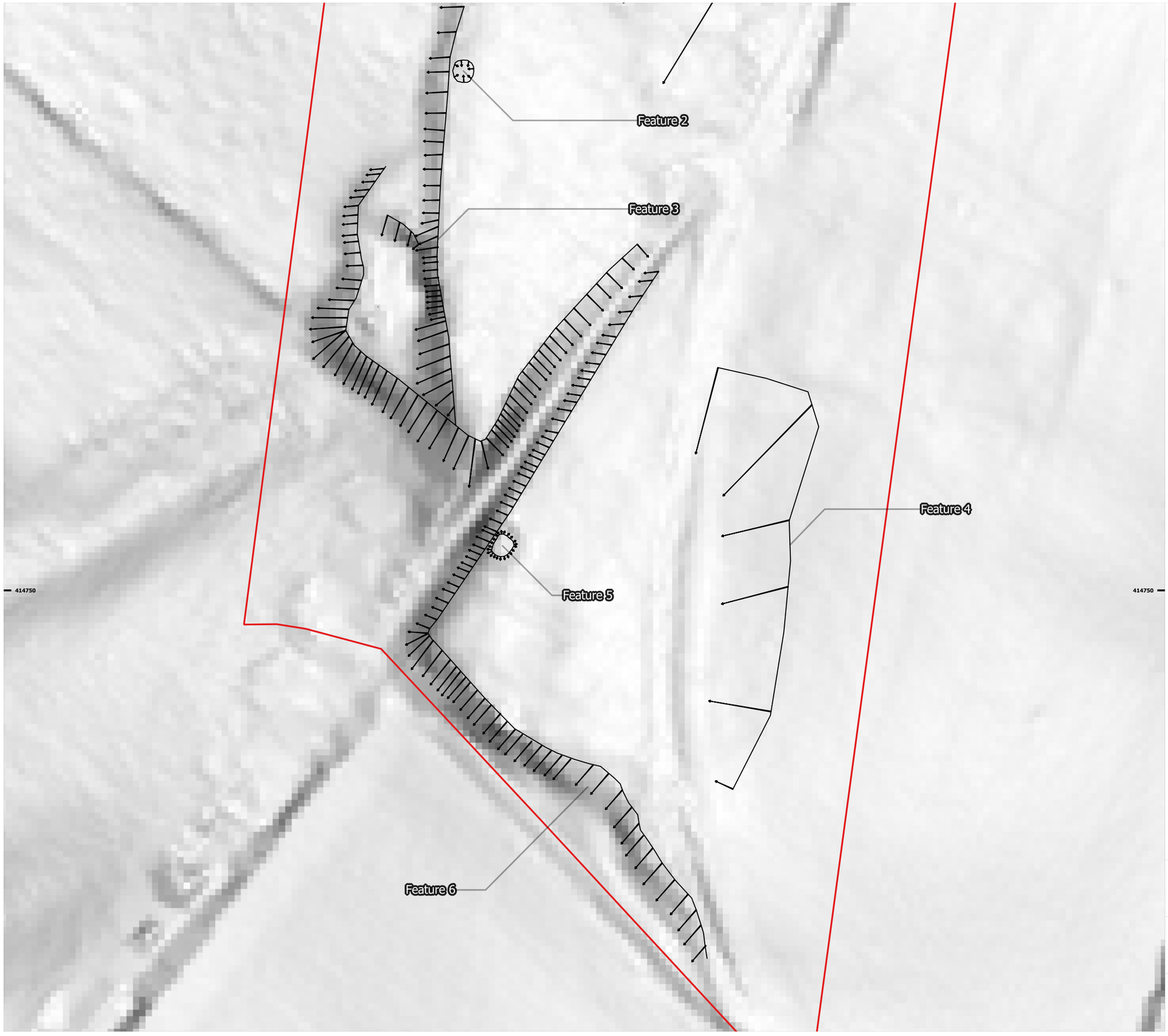

Figure 6: Identified Earthwork Features over LiDAR data @ DTM 1m resolution Slope (south)

Site Boundary
Identified Features

0 10 20 30 40 m

N

Site name: Kevil Land, Chorley
Date: April 2022
Drawn by: WR
Scale: 1:600 @ A3

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APPENDIX II PHOTOGRAPHS

Photograph 1: View north towards Feature 1.

Photograph 2: View north towards Feature 1.

Photograph 3: View west towards Feature 1.

Photograph 4: View northeast towards Feature 1.

Photograph 5: View north towards Feature 1.

Photograph 6: View west towards Feature 1. Scale 1x1m.

Photograph 7: View east towards Feature 1. Scale 1x1m.

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Photograph 9: View north towards Feature 1.

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Photograph 14: Feature 2 gently sloped depression looking north. Scale 1x1m.

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Photograph 17: View east towards Feature 3, evidence for masonry rubble. Scale 1x1m.

Photograph 18: View east towards Feature 3, evidence for coal spoil. Scale 1x1m.

Photograph 19: View northeast towards Feature 3, evidence for coal spoil.

Photograph 20: Feature 3 looking southeast.

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Photograph 22: Feature 3 looking east.

Photograph 23: Footpath bisecting the survey area looking north.

Photograph 24: Feature 5 looking south. Scale 1x1m.

Photograph 25: Feature 5 looking west. Scale 1x1m.

Photograph 26: Feature 5 looking north. Scale 1x1m.

Photograph 27: Masonry rubble possibly associated with Feature 5. Scale 1x1m.

Photograph 28: Masonry rubble possibly associated with Feature 5. Scale 1x1m.

Photograph 29: Cut stone block possibly associated with Feature 5 looking south. Scale 1x0.5m.

Photograph 30: Feature 6 looking northwest.

Photograph 31: View south towards Feature 4.

Photograph 32: View south towards Feature 4.

Photograph 33: View south towards Feature 4.

Photograph 34: View north towards Feature 4.

APPENDIX III WRITTEN SCHEME OF INVESTIGATION

Kevil Land, Chorley, Lancashire

Written Scheme of Investigation for Archaeological Works

November 2021

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Prepared on behalf of:	Taylor Wimpey UK Limited
Date of compilation:	November 2021
Compiled by:	William Rigby ACIfA
Checked by:	Tony Hanna MCIfA
Site code:	KLC21
Local Authority:	Chorley Council
Planning Reference Number:	16/00804/FULMAJ & APP/D2320/W/20/3265785
Site central NGR:	SD 57858 14817

1 INTRODUCTION

1.1 Project Background

1.1.1 This Written Scheme of Investigation (WSI) has been prepared by Archaeological Research Services Ltd (ARS Ltd) on behalf of Taylor Wimpey UK Limited. It details a scheme of archaeological works to be carried out at Kevil Land, Chorley, Lancashire.

1.1.2 Comments were provided by Joanne Smith, Planning Officer with Lancashire County Council (LCC) Historic Environment Team, in October 2016 as part of the original planning application (App. Ref. 16/00804/FULMAJ), for the erection of 201 dwellings, associated access, drainage and the provision of public open space and landscaping. These comments noted the following about the site.

'Burgh Colliery Railway is a non-designated heritage asset recorded on the Lancashire Historic Environment Record (PRN39906) as a former colliery tramway. The 1849 1st Edition Ordnance Survey 1:10560 mapping (Lancashire Sheet &&, surveyed 1844-47) shows a tramway running c.2km from Burgh Colliery at Coppull to Burgh Colliery Yard, on the south side of Chorley Moor, which is sited within the proposed development area. The tramway had mainly been dismantled by 1894.

In "The Industrial Archaeology of Lancashire" this site is reported as an embankment at the east end of Plock Wood, SD 579587, and a line of stone blocks near Plock Farm SD 581160 and in Burgh Lane SD 582162. The coal mining industry is a significant one within the borough and such colliery tramways were not uncommon. They are not so significant as to require preservation in-situ at the expense of the development, but they do merit the creation of a record prior to their loss.'

1.1.3 Planning permission was approved on appeal (App. Ref. APP/D2320/W/20/3265785), with condition Number 4 of the approved planning permission stating the following:

'No development shall take place until the implementation of a programme of archaeological work has been secured. This must be carried out in accordance with a written scheme of investigation, which shall first have been submitted to and approved in writing by the local planning authority.'

1.1.4 Updated consultation has been carried out with Joanne Smith, Planning Officer with the LCC Historic Environment Team, with the specific requirements for the programme of archaeological works now including the following:

No development shall take place until the applicant, or their agent or successors in title, has secured the implementation of a programme of archaeological work. This must be carried out in accordance with a written scheme of investigation, which shall first have been submitted to and agreed in writing by the Local Planning Authority.

- The programme and methodology of site investigation and recording.
- The programme for post investigation assessment.
- Provision to be made for analysis of the site investigation and recording.

- Provision to be made for publication and dissemination of the analysis and records of the site investigation.
- Provision to be made for archive deposition of the analysis and records of the site investigation
- Nomination of a competent person or persons/organization to undertake the works set out within the Written Scheme of Investigation
- Archaeological assessment including a historic map regression and site walkover survey in order to establish the parts of the site where remains of the dye works may survive that should be investigated and recorded.
- Strip, map and record excavation to target those areas where remains of the dye works may survive.

1.1.5 The archaeological works will be carried out in accordance with the *National Planning Policy Framework (NPPF)* paragraph 205 (MHCLG 2021, 58), *'to record and enhance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible.'*

1.1.6 This WSI confirms the nature of the archaeological works to be undertaken by ARS Ltd at Kevil Land, Chorley, Lancashire comprising a level 2 topographic earthwork survey and photographic recording to be followed by targeted strip, map and record of areas that reveal significant earthwork features.

1.2 Site Description and Location

1.2.1 The 'red-line boundary' of the proposed development area (hereafter 'PDA') is depicted by a red polygon on Figure 1 and is *c.*10.49ha in area (Figure 1). The site is bounded to the north by residential properties relating to Booth Avenue and Sampson Close, woodland to the east and west and further fields to the south. The topography of the PDA is sloped northeast to southwest, in the western half of the site boundary, from *c.*89m Ordnance Datum (aOD) and *c.*81.5 aOD, while the eastern half slopes from northeast *c.*91m aOD to west *c.*87m and south *c.*83m aOD. The site is centred at SD 57858 14817 (Figure 1).

1.3 Geology and Soils

1.3.1 The underlying solid geology of the PDA predominantly comprises Pennine Lower Coal Measures Formation – Mudstone, Siltstone and Sandstone with a seam of Lower Coal Measures Formation – Sandstone running on a southwest to northeast orientation in the eastern part of the site boundary. The superficial deposits consist of interchanging areas of Glaciofluvial deposits of Devensian – Sand and Gravel and Till, Devensian – Diamicton from west to east (BGS 2021).

1.3.2 The soils of the PDA are classified as belonging Soil unit 8, slightly acid loamy and clayey soils with impeded drainage in the west, and Soil unit 10, freely draining slightly acid sandy soils in the east (Soilscapes 2021).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 In the surroundings of the PDA, no substantial activity is recorded until the medieval period. Settlement activity is indicated from place-name evidence, with the historical parish of Duxbury being derived from the Anglo-Saxon word *Burh*, meaning fortified place, with the nomen *Duc* or *Doewuc* (Ekwall 1922, 128). Chorley is considered to be the combination of *ceorl* and *leah*, both Anglo-Saxon in origin, loosely translated as 'clearing among the woods belonging to a freeman' (Heyes 1994, 6).

2.2 A manor, first mention in 1227, and a corn mill are recorded at Duxbury. The water powered mill is first mentioned in 1354, although it has been suggested that it might be much earlier in date and continued in use until it was decommissioned in 1910 (Healy 2008, 6, 21).

2.4 As noted in section 1.1.2, the PDA was the location of the Burgh Colliery and associated buildings and railway. Analysis of LiDAR data has identified a possible earthwork features which collocates with the Burgh Colliery Railway depicted on the 1842 tithe map (See Figure 2). This would indicate that the earthwork features identified are likely to relate to Burgh Colliery and Railway.

2.5 Burgh Colliery is believed to have been established in the 1820s and a lease from 1836 documents that Burgh Colliery was granted fourteen years to lay a railroad or tramway (DDRF/5/11). In 1842, James Anderton is recorded as the land owner and Peel Entwistle the occupier of land plots 69 (railway) and 165 (field houses and colliery grounds) depicted on 1842 tithe map (see Figure 2). A newspaper cutting from 1846, in the London News, reported that an explosion occurred at Burgh Colliery, where eight people were killed (DDX519/140). A map analysis and regression of the PDA depicts Burgh Colliery and Railway on 1842 tithe mapping and 1844-1847 Ordnance Survey mapping. This mapping indicates that the railway bisected the PDA and associated colliery related structures were in close proximity to the railway within the site boundary. The Colliery and Railway was largely decommission by 1894, as stated above, and by 1908-1909 Ordnance Survey mapping portrays the Colliery as an Old Shaft and the Railway as an earthwork feature.

3 AIMS AND OBJECTIVES

3.1 Regional Research Aims and Objectives

3.1.1 Research topics identified within *An Archaeological Research Framework for North-West England: Volume 2. Research Agenda and Strategy* (Brennand *et al.* 2007) for these archaeological works include the following:

- Ind7.02: Undertake study or studies of the North West's tram systems focused on both the associated structures and their wider landscape impact

3.1.2 Studies for the archaeology of extractive industries continues to be developed and have tended to concentrate on Cumbria and Greater Manchester

within the Industrial and 20th Century period frameworks. Further research topics identified within the *North West Region Updated Research Agenda* for these periods (Nevell 2021) are as follows:

- Ind94: How well studied are the origins and development of colliery tram systems and do we understand their significance
- Ind91: How were transport infrastructures improved and how was this related to the developing urban and market hierarchy during the industrial period?
- Ind92: What impact did the regions early railway development have on the world?

3.1.3 This regional research framework helped inform the aims and objectives of the programme of archaeological work at Burgh Colliery Railway.

3.1.4 These aims and objectives will be visited both during and after all phases of archaeological works in order that they may be updated as necessary.

3.2 Level 2 Topographic Earthwork Survey Aims and Objectives

3.2.1 The aims and objectives of the Level 2 Topographic Earthwork Survey will be to:

- To 'ground-truth' the proposed survey area via implementation of an earthwork survey (See Figure 3), supplemented by a photographic record of the site, so that any subtleties within the construction of the earthwork features are fully recorded.
- Identify the presence/absence of archaeological features and deposits within the site.
- Gather sufficient information to establish the character, extent, form, function and likely status of any surviving archaeological features.

3.3 Strip, Map and Record Aims and Objectives

3.3.1 The aims archaeological fieldwork is to identify and record archaeological deposits identified within the proposed development site.

3.3.2 The objectives of the archaeological fieldwork are as follows.

- Target any areas of significant earthwork features for strip, map and record.
- Record any archaeological features and deposits encountered within the excavation area.
- Gather sufficient information to establish the character, extent, form, function and likely status of any surviving archaeological features or deposits within the excavation area, with a view to evaluating their significance and potential to inform the aims and objectives, outlined in section 3.1 of this document.

4 TOPOGRAPHIC AND EARTHWORK SURVEY

4.1 Coverage

4.1.1 It is intended that a topographic and earthwork survey be conducted across the proposed earthwork survey area (Figure 3).

4.2 General Statement of Practice

4.2.1 All elements of the topographic survey and level 2 earthwork survey will be carried out in accordance with the Chartered Institute for Archaeologist's (CIfA) *Code of Conduct: professional ethics in archaeology* (CIfA 2021) and Historic England's (2017) *Understanding the Archaeology of Landscapes. A Guide to Good Recording Practice (Second Edition).*

4.2.2 All staff employed on the project will be suitably qualified for their respective project roles and have substantial experience of archaeological excavation and recording.

4.2.3 All staff will be made aware of the archaeological importance of the area surrounding the site and will be fully briefed on the work required by this specification. Each member of staff will be fully conversant with the aims and methodologies of the watching brief and will be given a copy of this WSI to read.

4.2.4 Regular contact will be ensured between ARS Ltd and the site project manager to ensure that ARS Ltd is kept up to date with site works and given the chance to respond appropriately and in line with the requirements of the LCC Historic Environment Team Planning Officer.

4.2.5 All site operations will be carried out in a safe manner in accordance with ARS Ltd's health and safety policy. A risk assessment and method statement will be prepared before commencement on site.

4.3 Methodology

4.3.1 ARS Ltd will provide a suitably qualified and experienced archaeologist to undertake an earthwork survey of the site.

4.3.2 The survey will commence with a systematic walkover survey. When earthworks are encountered, a Leica GPS 1200+ global navigation satellite system (GNSS) with post-processing of data providing sub-centimetre accuracy, or other equivalent system, will be used to locate each surviving feature and a series of points recorded at the tops, bottoms and breaks of slope. Where linear features are to be recorded, points will also be recorded at significant changes of direction or at appropriate intervals where no changes in alignment are identified. The base survey produced will be used as the basis for the creation of an accurate hachured plan. Detail will be added to the hachured plan using measurements taken on-site by tape measure.

4.3.3 Baseline photographs to archaeological standards will be captured as part of this survey, and their position will be marked on a plan. An interpretation of the

features identified and any relationships between them will be provided in addition to a full catalogue.

4.4 Recording

4.4.1 A full photographic record will be compiled using a high quality digital SLR camera with a minimum 16-megapixel sensor and a register of all photographs will be kept. Working shots will be taken from fixed points in order to depict what the prevailing conditions were like during the time of recording. A clearly visible, graduated metric scale will be included in all shots.

4.4.2 The site will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. All heights above sea level will be recorded for all points in metres above Ordnance Datum (aOD).

4.4.3 All levels will be recorded during the monitoring using pro-forma record sheets, in accordance with the ARS Ltd field recording manual.

4.4.4 All data outputs will be tabulated, with tables produced in order to show the ground level at the time of the survey work.

4.5 Reporting

4.5.1 Following completion of the works, ARS Ltd will produce a report that will include the following.

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- A location plan showing any archaeological features with respect to nearby fixed structures and roads
- Illustrations of all archaeological features with appropriately scaled hachured plans and sections
- A objective summary statement of results
- Discussion and Conclusions
- Index to archive and details of archive location
- References
- Statement of intent regarding publication
- Confirmation of archive transfer arrangements
- A copy of the OASIS form.

4.5.2 A digital PDF/A copy of the final report will be deposited with the Lancashire Historic Environment Record (HER). A copy of the report will be uploaded as part of the OASIS record for online access via the Archaeological Data Service.

5 ARCHAEOLOGICAL STRIP, MAP AND RECORD EXCAVATION

5.1 Coverage

5.1.1 Depending on the results of the topographic and earthwork survey, the LCC Historic Environment Team Planning Officer may require an archaeological strip, map and record excavation to be carried out within the site in order to target significant earthwork features associated with Burgh Colliery.

5.2 General Statement of Practice

5.2.1 All elements of the archaeological strip, map and record excavation will be carried out in accordance with CIfA's *Code of Conduct: professional ethics in archaeology* (2021) and *Standard and Guidance for an Archaeological Excavation* (2020a).

5.2.2 All staff employed on the project will be suitably qualified for their respective project roles and have substantial experience of archaeological excavation and recording.

5.2.3 All staff will be made aware of the archaeological importance of the area surrounding the site and will be fully briefed on the work required by this specification. Each member of staff will be fully conversant with the aims and methodologies of the strip, map and record excavation and will be given a copy of this WSI to read.

5.2.4 All ground works covered under this specification will be undertaken by a suitable mechanical excavator fitted with a toothless ditching bucket operating under archaeological supervision.

5.2.5 ARS Ltd will ensure that plant or machinery will not be operated in the immediate vicinity of any archaeological remains until they have been recorded.

5.2.6 No plant will be allowed to track over areas until archaeological works are completed to the satisfaction of the Planning Officer with the LCC Historic Environment Team.

5.2.7 Contractors and plant operators must notify any observations of archaeological remains immediately to the archaeologist on site. The developer will make provision for the necessary archaeological investigation (fieldwork, post-excavation analysis, reporting and archive deposition).

5.2.8 Regular contact will be ensured between ARS Ltd and the site project manager to ensure that ARS Ltd is kept up to date with site works and given the chance to respond appropriately and in line with the requirements of the Planning Officer with the LCC Historic Environment Team.

5.2.9 All site operations will be carried out in a safe manner in accordance with ARS Ltd's health and safety policy. A risk assessment will be prepared before commencement on site.

5.2.10 The on-site archaeologist will be given, at their request, the opportunity to stop site work to investigate potential archaeological features. Adequate time will be negotiated and allowed for recording any such features.

5.3 Methodology

5.3.1 Topsoil, modern overburden and any hard standing will be removed by a mechanical excavator using a 2m wide toothless ditching bucket under archaeological supervision to the first significant archaeological horizon in successive level spits. No machinery will track over areas that have previously been stripped until the area has been signed off by ARS Ltd.

5.3.2 The excavation areas will be appropriately cleaned using hand tools in order to expose the full nature and extent of archaeological features and deposits.

5.3.3 All spoil removed during ground works will be scanned visually to recover small finds. Any finds so recovered will be recorded and their location noted on a site plan at a relevant scale. The finds will be retained and recorded.

5.3.4 All archaeological features are to be mapped on a base plan using suitable equipment, e.g. a survey-grade GPS, supplemented with high resolution (16 megapixel or greater) colour digital photography.

5.3.5 Once the area has been stripped, cleaned and mapped as outlined above, consultation will take place with the LCC Historic Environment Team Planning Officer to agree the archaeological features that should be excavated.

5.3.6 Isolated, discrete features such as pits not belonging to structures or industrial activities will be 50% sampled, although if they produce artefacts then provision is made for full excavation.

5.3.7 Sampling of linear features, such as ditches or gullies, will be sufficient to determine the character, stratigraphy and relationship to other features and attempts made to obtain dating evidence.

5.3.8 The depositions at junctions or interruptions in linear features will be sufficiently excavated for the relationship between components to be established, in plan and in section. All termini will be investigated.

5.3.9 Any deposits relating to funerary/ritual activities, such as burials and cremation deposits will initially be left *in-situ* and, if removal is deemed necessary, this will be undertaken in accordance with the relevant Ministry of Justice regulations.

5.3.10 Domestic/industrial activity (such as walls, postholes, floors, hearths) will be sufficiently excavated to understand their form and function and to recover potential dating evidence and artefact and ecofact assemblages.

5.3.11 Area deposits, such as buried soils, or middens, will be hand excavated at a minimum of 10%. Subsequent excavation by machine will be considered. Large intrusions, such as reservoirs, will be sufficiently excavated by machine, within safe limits, to provide information on their character.

5.3.12 Limited representative samples of bricks from brick-built structures will be retained for specialist analysis where appropriate.

5.4 Environmental Sampling, Faunal & Human Remains and Treasure

5.4.1 This section outlines sampling methodologies to be utilised on all excavation types.

5.4.2 A minimum soil sample of 40 litres (or 100% of the context if less) will be taken from sealed and stratigraphically secure deposits, that are adjudged to have the potential to provide environmental evidence relating to diet and economy, dating evidence or land use regime. A 100% soil sample of the deposit will be taken if the deposit is less than 40 litres in volume.

5.4.3 In the case of waterlogged or anaerobic deposits a minimum sample size of 20 litres will be taken.

5.4.4 Should a sequence of superimposed deposits of note be present, column sampling may be considered.

5.4.5 Samples will be assessed by a suitable specialist and provision will be made for scientific dating, where justified against the project aims.

5.4.6 Where there is evidence for industrial activity, macroscopic technological residues (or samples of them) will be collected by hand. Separate samples (*c.*10ml) will be collected from micro-slags (hammer scale and spherical droplets) in accordance with *Archaeometallurgy: Guidelines for Best Practice* (Historic England 2015a) and *Archaeological Evidence for Glassworking* (Historic England 2018a).

5.4.7 Samples will be taken for scientific dating (such as radiocarbon dating) in specific circumstances that will apply where dating by artefacts is insecure or absent.

5.4.8 Appropriate consideration will be given to the need for any geoarchaeological assessment of buried soils and sediment sequences exposed. Where this is necessary, these will be inspected and recorded on site by a recognised geoarchaeologist as field inspection may provide sufficient data for understanding site formation processes. The procedures and techniques presented in *Geoarchaeology: Using earth sciences to understand the archaeological record* (Historic England 2015b) will be applied. Samples for laboratory assessment will be collected where appropriate, following discussion with the Planning Officer with the LCC Historic Environment Team.

5.4.9 Sampling strategies for wooden structures should follow the methodologies presented in Historic England's *Waterlogged Wood: Guidelines on the recording, sampling, conservation and curation of waterlogged wood* (EH 2010). For other waterlogged organic finds, guidance provided by Historic England's (2018b) *Waterlogged Organic Artefacts. Guidance on their Recovery, Analysis and Conservation* will be followed.

5.4.10 Should other types of environmental deposits be encountered, appropriate specialist advice will be sought and an appropriate sampling strategy devised. Samples will be assessed by a suitable specialist with provision for further analysis as

required. Advice from the Historic England Scientific Advisor will be taken as appropriate.

5.4.11 In all instances sampling strategies will be in accordance with guidelines issued by Historic England's *Environmental Archaeology: A Guide to the Theory and Practice Methods, from sampling and recovery to post excavation* (Campbell *et al*. 2011) and will be targeted in order to explore the levels and types of preservation present.

5.4.12 Any human remains will initially be left *in-situ,* covered and protected. Removal will be undertaken, if deemed necessary, once a Coroners licence has been obtained in accordance with the relevant Ministry of Justice regulations, in line with current guidelines (English Heritage 2004; APABE/English Heritage 2013; APABE 2017; Mitchell and Brickley 2017) and in discussion with the Planning Officer with the LCC Historic Environment Team.

5.4.13 All finds that may constitute 'treasure' under the Treasure Act, 1996, will be removed to a safe place and reported to the local Coroner in accordance with the Treasure Act (DCMS 2008). The Portable Antiquities Liaison Officer will also be notified.

HM Coroner
Dr James Adeley
Coroners Court,
2 Faraday Court
Preston
Lancashire
PR2 9NB
Tel: 01772 536536

Finds Liaison Officer
Ian Bass/Alex Whitlock
Museum of Lancashire
Stanley Street
Preston
Lancashire
PR1 4YP
Tel: 07557 030768/07814 296173

5.4.14 The Planning Officer with the LCC Historic Environment Team will also be notified and, if necessary, a site meeting arranged to determine if further investigation in the vicinity of the find spot is required. Where removal cannot take place on the same working day as discovery, suitable security measures will be taken to protect the finds from theft.

5.5 Recording

5.5.1 The site will be recorded in accordance with the ARS Ltd's field recording manual and single context recording system, and will include as a minimum, context record sheets, an accurate site plan and record photography where no archaeological features are present.

5.5.2 The site will be tied into the National Grid and located on a 1:2500 or 1:1250 map of the area.

5.5.3 Accurate measured scale plans and section/elevations will be drawn where required at the appropriate scale and in accordance with best practice. In addition to relevant illustrations, provision for rectified photographic recording shall be made, if deemed necessary.

5.5.4 For brick structures, the record will include details of brick dimensions and type (handmade/machine-made, plain/frogged), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins).

5.5.5 Sample representative levels will be taken to record the maximum depth of excavation and /or natural should no archaeological features be uncovered.

5.5.6 All archaeological deposits and features will be recorded with above ordnance datum (aOD) levels.

5.5.7 A full photographic record will be compiled using a digital camera, a Fuji XP90 with a 16.4 MP resolution. This will be used as an alternative record in order to create the visual archive, in place of the usual Black and White film. The photographs will be archived in accordance with Historic England guidance (2015c) and a register of all photographs will be kept. The photographic record will encompass all encountered archaeological entities as well as recording the general environs of the site and working practices. In addition, key relationships between entities, where these help demonstrate sequence or form, will also be photographed. A clearly visible, graduated metric scale will be included in all record shots. A supplementary record of working images will be taken to demonstrate how the site was investigated and what the prevailing conditions were like during excavation.

5.5.8 Where stratified deposits are encountered, a 'Harris' matrix will be compiled.

5.6 Finds Processing and Storage

5.6.1 All finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the *First Aid for Finds* (Watkinson and Neal, 2001). All finds processing, conservation work and storage of finds will be carried out in accordance with the CIfA (2020b) *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*; and UKIC (1990) *Guidelines for the Preparation of Archives for Long-Term Storage*.

5.6.2 Artefact collection and discard policies will be appropriate for the defined purpose.

5.6.3 Bulk finds which are not discarded will be washed and, with the exception of animal bone, marked. Marking and labelling will be indelible and irremovable by abrasion. Bulk finds will be appropriately bagged, boxed and recorded. This process will be carried out no later than two months after the end of the excavation.

5.6.4 All small finds will be recorded as individual items and appropriately packaged (e.g. lithics in self-sealing plastic bags and ceramic in acid-free tissue paper). Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. This process will be carried out within two days of the small find being excavated.

5.6.5 Metal finds will be sampled, processed and analysed in line with *Archaeometallurgy: Guidelines for best practice* (Historic England 2015a), and *Guidelines on the X-radiography of archaeological metalwork* (English Heritage 2006a). Any waterlogged artefacts or ecofacts will be sampled, processed and analysed using *Waterlogged Wood: Guidelines on the Recording, Sampling,*

Conservation and Curation of Waterlogged Wood (English Heritage 2010) and *Waterlogged Organic Artefacts. Guidelines on their Recovery, Analysis and Conservation* (Historic England 2018b).

5.6.6 Artefacts, ecofacts and deposits suitable for dating purposes will be identified and obtained in line with *Dendrochronology: Guidelines on producing and interpreting dendrochronological dates* (English Heritage 1998), *Archaeomagnetic Dating: Guidelines on producing and interpreting archaeomagnetic dates* (English Heritage 2006b), and *Luminescence Dating: Guidelines on using luminescence dating in archaeology* (English Heritage 2008).

5.6.7 During and after the excavation all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (including controlled storage, correct packaging, and regular monitoring, immediate selection for conservation of vulnerable material). All storage will have appropriate security provision.

5.6.8 The deposition and disposal of artefacts will be agreed with the legal owner and recipient museum prior to the work taking place, i.e. Lancashire County Museum Service (LCMS). All finds except treasure trove are the property of the landowner.

5.6.9 All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of LCMS (2012) *Guidance for the Deposition of Archaeological Archives*.

5.7 Post-Excavation

5.7.1 The archaeological fieldwork will be followed by post-excavation analysis and reporting. This will include the cataloguing and analysis of any finds, samples and the preparation of the archive for the site report and its subsequent deposition. Where artefacts are recovered from identified features they will be quantified by date class and type; in other circumstances, they will be quantified by period and class and type (e.g. 5 sherds, late Roman grey ware pottery); in other circumstances, as a minimum, they should be quantified by period and class (e.g. 5 sherds, Roman pottery).

5.7.2 Artefacts, biological samples and soils will be assessed for evidence of site and deposit formation processes and for evidence of recent changes that may have been caused by alterations in the site environment. Assessment will, where necessary, include x-radiography of all iron objects, (after initial screening to exclude obvious recent debris), and a selection of non-ferrous artefacts (including all coins).

5.7.3 Where necessary, active stabilisation or consolidation will be carried out, to ensure long-term survival of the material with due consideration to possible future investigation.

5.7.4 Once assessed, all material will be packed and stored in optimum conditions, as described in *First Aid for Finds* (Watkinson and Neal 2001).

5.7.5 Assessment of any technological residues will be undertaken.

5.7.6 Any samples for dating will be promptly submitted and prior agreement will be made with the laboratory on turn-around time and report production.

5.7.7 Processing of all soil samples collected for biological assessment, or subsample of them, will be completed. The preservation state, density and significance of material retrieved will be assessed by recognised specialists. Special consideration will be given to any evidence for recent changes in preservation conditions that may have been caused by alterations in the site environment. Unprocessed sub-samples will be stored in conditions specified by the appropriate specialists.

5.7.8 Samples collected for geoarchaeological assessment will be processed as necessary by a recognised specialist and appropriate assessment be undertaken. Where preservation *in-situ* is a viable option consideration should be given to the possible effects of compression on the physical integrity of the site and to any hydrological impacts of development.

5.7.9 Animal bone assemblages, or sub-samples of them, will be assessed by a recognised specialist.

5.7.10 Where human remains have been lifted assessment will be undertaken by a recognised specialist.

5.8 Report

5.8.1 Following completion of the archaeological strip, map and sample excavation, ARS Ltd will produce a comprehensive report which will include the following at a minimum:

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- A location plan showing all excavated areas and any archaeological features with respect to nearby fixed structures and roads
- Illustrations of all archaeological features with appropriately scaled hachured plans and sections
- An objective summary statement of results
- Discussion and Conclusions
- Supporting data – tabulated or in appendices to include
    - Specialist Reports
    - Structural and Stratigraphic details
- Index to archive and details of archive location
- References
- Statement of intent regarding publication

- Confirmation of archive transfer arrangements
- A copy of this WSI and OASIS form.

5.8.2 A digital PDF/A copy of the final report will be deposited with the Lancashire HER. A copy of the report will be uploaded as part of the OASIS record (see below) for online access via the Archaeological Data Service.

6 TIMETABLE, STAFFING AND RESOURCES

6.1 The timetable for the works is as follows. The Planning Officer with the LCC Historic Environment Team will be updated by email as works progress.

Task No.	Task	Proposed Commencement Date
1	Topographic and Earthwork Survey	TBC
2	Post excavation assessment	Immediately follows Task 1
3	Report preparation and completion	Immediately follows Task 2
4	Strip, Map and Sample Fieldwork	TBC (Immediately follows Task 3)
5	Post excavation assessment including any specialist reporting required	Immediately follows Task 4
6	Report preparation and completion	Immediately follows Task 5
7	Archive preparation, completion and deposition	Immediately follows Task 6

6.2 ARS Ltd.'s Head of Field Archaeology, Reuben Thorpe MCIfA, is responsible for all of ARS Ltd archaeological fieldwork. A Project Manager will be allocated to this job. A Project Officer will be allocated from the core ARS Ltd staff.

6.3 Finds analysis will be carried out by appropriately qualified specialists as detailed subject to availability.

- Flint and prehistoric pottery: Dr Robin Holgate MCIfA
- Roman-British pottery: Dr Phil Mills
- Romano-British small finds: Alex Croom
- Samian ware: Dr Gwladys Monteil
- Medieval and post-medieval pottery: Dr Chris Cumberpatch/Dr Robin Holgate MCIfA
- Medieval and post-medieval glass, metalwork and clay pipes: Mike Wood MCIfA
- Industrial Remains: Dr Roger Doonan
- Plant macrofossils, charcoal and Luke Parker PCIfA

pollen:

- Human and animal bone: Milena Grzybowska ACIfA
- Radiocarbon dating: Professor Gordon Cook (SUERC)
- Finds conservation: Vicky Garlick (Durham University)

7 MONITORING ARRANGEMENTS

7.1 At least one week's notice of the commencement of each phase of archeological fieldwork will be given by ARS Ltd to the LCC Historic Environment Team Planning Officer in order that arrangements for monitoring the fieldwork may be made.

Joanne Smith
Planning Officer
Lancashire County Council Historic Environment Team
Development Management
Planning &Environment
Lancashire County Council
PO Box 100
County Hall
Preston
County Hall
PR1 0LD
Tel: 01772 531258
Email: joanne.smith@lancashire.gov.uk

7.2 ARS Ltd will liaise with the Lancashire CC Historic Environment Team Planning Officer throughout the course of the work.

7.3 The client will afford reasonable access to the Lancashire CC Historic Environment Team Planning Officer for the purposes of monitoring the archaeological works.

8 ARCHIVE PROCEDURE

8.1 Archive Selection Strategy

8.1.1 Selection of the working project archive will be guided by: the aims and objectives as set out in this WSI (section 3 above), the *Toolkit for Selecting Archaeological Archives* (CIfA 2019), the *Updated North-West England Regional Research Framework,* and Lancashire County Museum Service (LCMS), *Guidance for the Deposition of Archaeological Archives* (LCMS 2012).

8.2 Documentary Archive

8.2.1 All original documentary material created and collected during the archaeological works will be selected for inclusion in the final archive. Any duplicates (including photocopies) of original documents will not be included in the final archive, in line with the recipient museum's deposition policy

8.2.2 The deselected documents will be recycled, subject to final checks by ARS Ltd.'s Post-Excavation and Archives Supervisor.

8.3 Digital Archive

8.3.1 All digital data created over the course of this project will be collected, stored, and selected for final deposition in line with the project's Data Management Plan. The key types of digital data produced will include the following.

Type	Data
Text	Digital copies of the Written Scheme of Investigation and final report
Images	Site photography, scans of site drawings, graphics for reports, digitised drawings
Finds Data	Finds reports and tables, conservation records, images

8.3.2 Only final copies of any born digital data will be selected and deposited in the final project archive.

8.3.3 Digital data to be included in the final archive will be reviewed during the post-excavation and archiving phase of works.

8.3.4 The project manager and digital archive repository will be consulted on the fate of any deselected material. Deselected material is expected to include duplicates and any non-final versions of data. Digital photographs will be assessed during post-excavation works and selected in line with Historic England's *Digital Image Capture and File Storage* (2015c). The deselected material will be stored on the ARS Ltd server for a period before being reviewed and deleted.

8.4 Material Archive

8.4.1 The selection of material finds for final deposition in the archaeological archive will be decided in collaboration with the finds specialist during the post-excavation phase, based on addressing the aims and objectives of the project set out in this WSI, the *Updated North West England Regional Research Framework,* and LCMS (2012) *Guidance for the Deposition of Archaeological Archives.*

8.4.2 No material will be discarded without processing and recording. Deselected material can be retained as part of a handling or teaching collection, returned to the landowner, or discarded as agreed by the landowner, specialists, collecting museum and planning archaeologist.

8.5 Deposition

8.5.1 Should the project produce archaeologically significant finds, the repository museum will allocate an archive accession number at the beginning of the post-excavation stage and a project archive prepared for deposition by ARS Ltd with the recipient museum. This digital, paper and artefactual archive will comprise all the primary written documents, plans, sections, photographs and electronic data and an accompanying metadata statement.

8.5.2 High resolution digital photographs would, in discussion the LCC Historic Environment Team Planning Officer, be submitted to the Archaeological Data Service (ADS) digital archive repository with the associated photographic registers and metadata. The digital archive will be prepared in line with current best practice as outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011).

8.5.3 A digital PDF/A copy of the final reports will be deposited with the Lancashire HER. A copy of the archaeological works reports will be updated as part of the OASIS record for online access via the Archaeological Data Service.

8.5.4 The archive will be deposited in line with *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (Brown 2011), CIfA's (2020c) *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*, and Society of Museum Archaeologists (1993) *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland*. In addition, the archive will be prepared in accordance with the guidance provide in LCMS (2012) *Guidance for the Deposition of Archaeological Archives.* The archive will be deposited within six months of the completion of the report.

8.5.5 The Planning Officer with the LCC Historic Environment Team and Museum Curator will be notified at the earliest opportunity should the site produce archaeologically significant, unusual, or unexpected finds.

8.5.6 LCMS has been notified of the archaeological works and provided with a copy of this WSI.

8.5.7 Upon completion of the fieldwork, the Planning Officer with the LCC Historic Environment Team will be notified in writing on completion of the fieldwork with project dates for the completion of the report and deposition of the archive. LCCMS will be contacted in order to determine a provisional timetable for archive review. The museum will be afforded the opportunity to review the material archive at two specific stages:

- At the start of the assessment stage to discuss the post-fieldwork material retention strategy and to assess and discuss initial conservation needs.
- Prior to the deposition of the archive to ensure that the archive has been prepared to the agreed standards.

8.5.8 The date for deposition of the archive and its contents will be outlined in the report and the Planning Officer with the LCC Historic Environment Team informed in writing on final deposition of the archive.

8.5.9 All retained artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive.

8.5.10 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts deposited with the archive as digital images on disc.

8.5.11 At the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/project/oasis/ will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded pdf.

9 GENERAL ITEMS

9.1 Health and Safety

9.1.1 All work will be carried out in accordance with The Health and Safety at Work Act 1973. Specific health and safety policies existing for all our workplaces and all staff employed will be made aware of the policy and any relevant issues. The particular risks involved with this project will be assessed, recorded and relevant mitigation measures put in place as part of a full risk assessment, which will be compiled in advance of fieldwork and will be read and signed by all on-site operatives. ARS Ltd retains Citation as its health and safety consultants.

9.2 Insurance Cover

9.2.1 ARS Ltd has full insurance cover for employee liability (£10 million), public liability (£10 million), professional indemnity (£10 million) and all-risks cover.

9.3 Community Engagement and Outreach

9.3.1 Any opportunities will be sought for engaging the local community in any archaeological findings, for example a guided site tour and/or dissemination of information via ARS Ltd's website, social media and local media.

9.4 Changes to the Written Scheme of Investigation

9.4.1 Changes to the approved methodology or programme of works will only be made with prior written approval of the LCC Historic Environment Team Planning Officer.

9.5 Publication

9.5.1 If significant archaeological remains are recorded, a summary of the project with, if appropriate, selected drawings, illustrations and photographs will be prepared for publication in online, journal or monograph form as appropriate. Additional popular articles will also be produced for local and/or national magazines as appropriate. The final form of the publication is to be agreed with the planning archaeologist and the client dependent on the results of the fieldwork.

9.6 Publicity and Copyright

9.6.1 Any publicity will be handled by the client. ARS Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

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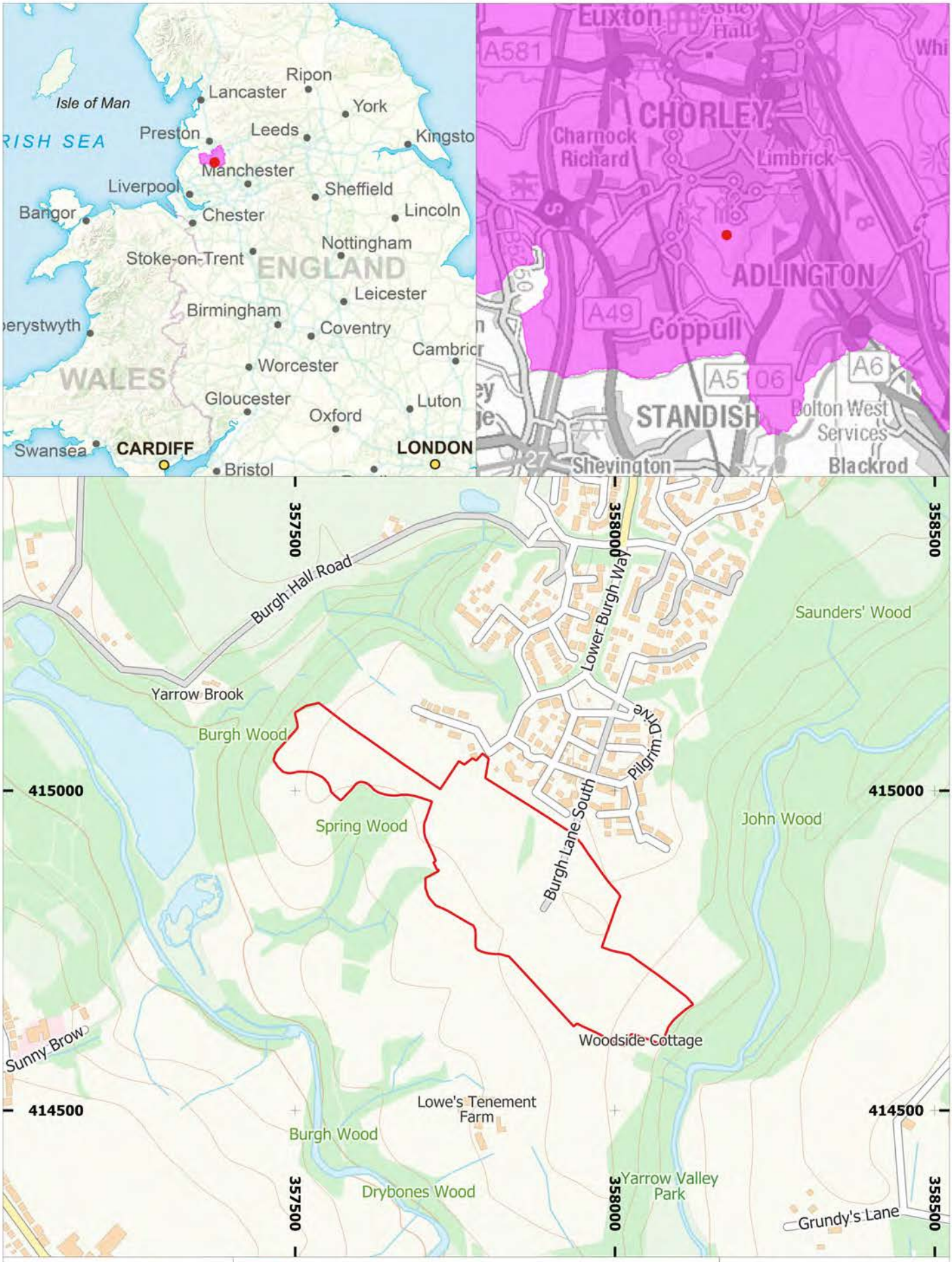
FIGURES



Site name: Kevil Land, Chorley
Date: November 2021
Drawn by: WR
Scale: Varies

Site Boundary

Chorley District

N

Figure 1:
Site location

Archaeological Research Services Ltd

Suite 1
First Floor
Dunham House
Cross Street
Sale
M33 7HH
Tel: 01619 762544

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Figure 2: 18 Chorley Tithe Map 1842 over LiDAR Data @ DTM 1m resolution Slope

Site Boundary

0 25 50 75 100 m

N

Site name:	Kevil Land, Chorley
Date:	November 2021
Drawn by:	WR
Scale:	1:2,000 @ A3

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Figure 3: Proposed Study Area For Level 2 Earthwork Survey over LiDAR data @ DTM 1m resolution Slope

Site Boundary

Proposed Earthwork Survey Area

0 25 50 75 100 m

N

Site name: Kevil Land, Chorley
Date: November 2021
Drawn by: WR
Scale: 1:2,500 @ A3

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