

ARCHAEOLOGICAL  
SERVICES  
DURHAM UNIVERSITY

on behalf of  
Miller Homes

Proposed drainage route 2  
Lambton Park  
County Durham  
  
archaeological evaluation

report 4965  
January 2019

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## **1. Summary**

### **The project**

- 1.1 This report presents the results of an archaeological evaluation conducted in advance of a proposed development at Lambton Park, County Durham. The works comprised the excavation and recording of ten evaluation trenches. One of the trenches was extended so that the archaeological resource identified could be fully recorded prior to the development taking place.
- 1.2 The works were commissioned by Miller Homes and conducted by Archaeological Services Durham University.

### **Results**

- 1.3 Parallel drainage ditches and impressions of sleepers were identified in Trench 7. These were the remains of a waggonway, aligned roughly north/south.
- 1.4 Furrows, the remains of medieval or post-medieval ploughing, were recorded in Trenches 4, 6 and 7, cut into the natural subsoil. These relate to two separate ploughing regimes.
- 1.5 No significant archaeological resource deposits were identified in the remaining trenches.
- 1.6 Late 18th/19th century pottery was recovered from the waggonway features.

### **Recommendations**

- 1.7 No archaeological resource was identified which requires preservation *in situ*.
- 1.8 The area of the waggonway which will be impacted upon by the drainage scheme was wholly investigated as part of this scheme of works, and therefore no further archaeological work is required.

## 2. Project background

### Location (Figure 1)

- 2.1 The site is located within Lambton Park, County Durham (NGR north: NZ 3042 5291; NGR south NZ 3104 5215). It comprises a broadly linear north/south route with branches off to the south-east, and covers an area of approximately 8ha. To the north is the River Wear, with parkland of the Lambton Estate to the east and west, and estate buildings to the south.

### Development proposal

- 2.2 A water drainage scheme with attenuation pond is proposed.

### Objective

- 2.3 The objective of the scheme of works was to identify and record the extent of the archaeological resource on the site, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the development.

### Research Objectives

- 2.4 The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the scheme of works was designed to address the following agenda items:

#### Later Medieval

MDii Landscape

#### Post-medieval

PM2 Early railways

### Specification

- 2.5 The works have been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (reference DS18.454r) and approved by the planning authority.

### Dates

- 2.6 Fieldwork was undertaken between the 5th and 12th December 2018. This report was prepared for January 2019.

### Personnel

- 2.7 Fieldwork was conducted by Daniel Adamson, Matthew Claydon, Meghan McCarthy, Geno Naughton, Laura Watson and Rebekah Watson (supervisor). This report was prepared by Matthew Claydon and Rebekah Watson, with illustrations by Janine Watson. Specialist reporting was conducted by Jenny Jones (artefacts). The Project Manager was Daniel Still.

### Archive/OASIS

- 2.8 The site code is **LPD18**, for **Lambton Park Drainage 2018**. The archive is currently held by Archaeological Services Durham University and will be transferred to Bowes Museum in due course. Archaeological Services Durham University is registered with

the **Online Access to the Index of archaeological investigationS project (OASIS)**. The OASIS ID number for this project is **archaeol3-336654**.

### **3. Landuse, topography and geology**

- 3.1 At the time of this assessment, the proposed development area (PDA) comprised pasture fields and woodland within Lambton Park.
- 3.2 The ground of the PDA rises from an elevation of c.5m OD alongside the River Wear to c.43m OD at the south end of the route. The land descends to 35m OD within a former river channel towards the centre of the route. The PDA is located within Natural England's Tyne and Wear Lowlands (14) National Character area. The area comprises gently undulating land, incised by the valleys of the Tyne and Wear rivers and their tributaries. There are dense concentrations of population and urban settlement has been influenced by industry and infrastructure. Between the settlements there are areas of agricultural land. Evidence of former mineral extraction is evident in the area with spoil heaps restored to pastures, mixed and coniferous plantations, amenity ponds and lakes within accessible green spaces such as country parks, and footpaths and cycle routes created along former waggonways (Natural England 2013).
- 3.3 The underlying solid geology of the area comprises Carboniferous Period mudstone, siltstone and sandstone of the Pennine Middle Coal Measures Formation. Alongside the River Wear the bedrock is overlain by Quaternary alluvial deposits of clays, silts, gravels and sands, while to the south, the superficial deposits comprise clay of the Pelaw Clay Member, also formed in the Quaternary period ([www.bgs.ac.uk](http://www.bgs.ac.uk)).

### **4. Historical and archaeological background**

- 4.1 A detailed archaeological desk-based assessment and geophysical survey have been conducted for the proposed development (Archaeological Services 2018a); the results of that assessment are summarised here.
- 4.2 Another phase of geophysical survey was recently conducted (Archaeological Services 2018b). This identified evidence for two potential waggonways, a mine shaft and former ridge and furrow cultivation.
- 4.3 An archaeological evaluation has been conducted in the south-eastern corner of Lambton Park, near the southern extent of the PDA (Archaeological Services 2018c). This identified the remains of two waggonways, along with a mine shaft, ridge and furrow ploughing regimes and landscaping works.
- 4.4 There is no evidence for prehistoric or Roman activity within the study area and limited potential for an unknown resource to exist.
- 4.5 Ridge and furrow earthworks from the medieval or post-medieval periods survive within the PDA.
- 4.6 During the post-medieval period Lambton Park was heavily exploited for coal. Former pit shafts and waggonways have been identified on the site by the archaeological works mentioned above.

## 5. The evaluation trenches

### Introduction

- 5.1 Ten trenches were excavated along the proposed drainage route (Figure 2). All of the trenches measured 20m by 2m, except Trench 8, which was 10m by 2m and Trench 7, which was extended to 21m by 10m along its longest axes. Trenches were dug using a mechanical excavator equipped with a toothless ditching bucket, under constant archaeological supervision. The context data is summarised in Table 1.1. Trench plans and sections are shown on Figures 3-4.

### Trench 1 (Photo 1)

- 5.2 This trench was located at the north-western end of the drainage route, aligned north-west/south-east. Natural subsoil, an orange-brown sandy clay [2], was identified between 0.4m and 0.5m below the ground surface (a mean elevation of 4.58m OD across the trench). Cutting this were 6 field drains; five stone-filled drains aligned north-east/south-west, and one ceramic drain on an east-north-east/west-south-west alignment. Overlying the whole trench was a layer of black-brown silty clay topsoil [1: 0.4m to 0.5m deep]. No archaeological features were identified and no artefacts recovered.

### Trench 2

- 5.3 This trench was located in the north-western part of the drainage route, aligned roughly north/south. Natural subsoil, an orange-brown sandy clay [2], was identified between 0.35m and 0.55m below the ground surface (an elevation of 10.93m OD at the northern end of the trench, rising to 13.83m OD at the southern end). In the centre of the trench this was cut by a field drain, aligned north-west/south-east. Overlying the whole trench was a layer of grey-brown sandy clay subsoil [3: 0.1m to 0.3m deep], with a black-brown silty clay topsoil [1: 0.25m deep] above it. All these deposits were cut by a modern truncation, aligned north-west/south-east near the southern end of the trench. No archaeological features were identified and no artefacts recovered.

### Trench 3

- 5.4 Trench 3 was located in the north-western part of the drainage route, aligned roughly north/south. Natural subsoil, a yellow-brown sandy clay [2], was identified between 0.3m and 0.5m below the ground surface (an elevation of 25.85m OD at the northern end of the trench, rising to 26.31m OD at the southern end). This was cut by 3 field drains; two stone-filled drains aligned north-west/south-east and one ceramic drain aligned roughly east/west. Overlying the whole trench was a layer of grey-brown sandy clay subsoil [3: 0.05m to 0.15m deep], with a black-brown silty clay topsoil [1: 0.25m to 0.35m deep] immediately above it. No archaeological features were identified and no artefacts recovered.

### Trench 4

- 5.5 This trench was located in the northern part of the drainage route, aligned north-west/south-east. Natural subsoil, an orange-brown sandy clay [2], was identified between 0.2m and 0.3m below the ground surface (a mean elevation of 37.11m OD across the whole trench). This was cut by a plough furrow [F5] in the centre of the trench, aligned north-east/south-west and approximately 2.5m wide and 0.15m deep. It was filled by a grey-brown silty clay [4]. Further ridge and furrow earthworks were visible on the ground surface, but were not present within the trench cutting the natural subsoil. Two field drains cut the natural subsoil, one aligned north-

east/south-west and one east/west. Across the whole trench was a black-brown sandy silt topsoil [1: 0.2m to 0.3m deep]. No artefacts were recovered.

#### **Trench 5**

- 5.6 This trench was located in the central part of the drainage route, aligned roughly north/south. Natural subsoil, an orange-brown sandy clay [2], was identified between 0.2m and 0.3m below the ground surface (a mean elevation of 38.10m OD across the trench). Overlying this was a black-brown sandy silt topsoil [1: 0.2m to 0.3m deep]. No archaeological features were identified and no artefacts recovered.

#### **Trench 6**

- 5.7 Trench 6 was located in the central part of the drainage route, aligned east/west. Natural subsoil, an orange-brown sandy clay [2], was identified between 0.25m and 0.30m below the ground surface (an elevation of 34.04m OD at the western end of the trench, rising to 37.48m OD at the eastern end). This was cut by a plough furrow [F5] near the western end of the trench. It was aligned north/south and was around 1m wide and over 0.1m deep. It was filled by a grey-brown silty clay [4]. Further ridge and furrow earthworks were visible on the ground surface, but were not present within the trench cutting the natural subsoil. Overlying the whole trench was a black-brown sandy silt topsoil [1: 0.25m to 0.30m deep]. No artefacts were recovered.

#### **Trench 7 (Photo 2)**

- 5.8 This trench was located in the central part of the drainage route, aligned north-west/south-east, and targeted a potential waggonway identified on the geophysical survey. This trench was extended to cover the full extent of the waggonway within the proposed drainage route. Natural subsoil, a yellow-brown sandy clay [2], was identified between 0.30m and 0.35m below the ground surface (a mean elevation of 39.93m OD across the trench). This was cut by three plough furrows [F5], aligned roughly north/south. The furrows were evenly spaced, between 2m and 3m wide and approximately 3m apart. They were filled by a grey-brown silty clay [4: 0.15m+ deep].
- 5.9 The furrows were cut by two parallel linear ditches aligned roughly north/south across the full extent of the trench. The west ditch [F9: 10.5m+ by 1.8m, 0.18m deep] was filled by a black clayey silt [8] containing large amounts of coal dust with occasional larger lumps of coal (Photo 2). The east ditch [F13: 15m+ by 0.6m to 1m wide, 0.1m deep] was filled with similar material [12]. These ditches would have provided drainage down either side of the former waggonway.
- 5.10 Between the ditches were the partial impressions of a series of 13 sleepers [F7]. These varied slightly in size but were approximately 1.8m by 0.3m, and 0.1m deep. These impressions were filled by a loose deposit of crushed brick, stone and silt towards the centre and south and black coal waste towards the north [6] (Photo 3). An associated north/south indentation [F21: 2m by 0.15m, 0.1m deep] filled with the same material [20] was recorded linking three of the sleeper impressions.
- 5.11 A narrow rut was recorded east of ditch [F13]. This feature [F17: at least 5m long by 0.1m wide, 0.05m deep] was closely parallel to the ditch and clearly associated with it. It was filled with the same black coal waste [16] from which a sherd of late 18th/19th century pottery was recovered.

- 5.12 Two further ruts were recorded internally parallel to the ditches. Both these ruts [F19 & F23] were intermittent, narrow and shallow. They were a maximum of 0.15m wide and 0.05m deep, and were filled with grey-brown sandy silt [18 & 22]. The ruts were ephemeral in nature and in places survived as little more than a stain. These features could be associated with the waggonway, but may simply be plough scars.
- 5.13 Three roughly north/south aligned field drains were recorded within the trench. A gully [F15: 0.3m wide] filled with mixed clay and soil [14] containing sherds of pottery including late 18th/early 19th century porcelain was also recorded, cutting through the waggonway features. Overlying the whole trench was a layer of black-brown silty sand topsoil [1: 0.30m to 0.35m deep].

#### **Trench 8**

- 5.14 Trench 8 was located near the central part of the drainage route, aligned east/west, in an area identified as disturbed ground on the geophysical survey. Natural subsoil, a yellow-brown sandy clay [2], was identified between 0.7m and 0.9m below the ground surface (a mean elevation of 43.24m OD across the trench). Cutting this in the centre of the trench was a field drain aligned north/south. Across the whole trench was a grey-brown sandy clay subsoil [3: 0.15m to 0.25m deep], with a black-brown sandy silt topsoil [1: 0.20m to 0.25m deep] above it. Overlying this was a modern made ground deposit [10: 0.35m to 0.40m deep], comprising the topsoil mixed with natural clay and building rubble. This corresponds to the geophysical data mentioned above. No archaeological features were identified and no artefacts recovered.

#### **Trench 9**

- 5.15 This trench was located in the eastern part of the drainage route, aligned east/west. Natural subsoil, an orange-brown sandy clay [2], was identified between 0.30m and 0.55m below the ground surface (a mean elevation of 40.37m OD across the trench). Cutting this were three field drains on a north-east/south-west alignment. Overlying the natural subsoil at the eastern end of the trench was a coal-rich deposit [11: 6m+ by 2m+, 0.2m deep]. Across the whole trench was a black-brown sandy silt topsoil [1: 0.30m to 0.35m deep]. No artefacts were recovered.

#### **Trench 10 (Photo 4)**

- 5.16 Trench 10 was located at the eastern end of the drainage route, aligned east/west. Natural subsoil varied between an orange-brown and grey-brown sandy clay [2], and was identified between 0.25m and 0.35m below the ground surface (a mean elevation of 41.13m OD across the trench). Cutting this were two field drains on a north-west/south-east alignment. Overlying the whole trench was a black-brown sandy silt topsoil [1: 0.25m to 0.35m deep]. No archaeological features were identified and no artefacts recovered.

## **6. The artefacts**

### **Pottery assessment**

#### **Results**

- 6.1 Two post-medieval sherds (35g wt) were hand-recovered. A fragment of pearlware rim from a piece of hollow ware came from context [14], this dating to between c.1780 – 1840. A body sherd of late 18th/19th century mottle-glazed coarseware came from context [16].



### **Recommendation**

- 6.2 No further work is recommended.

### **Building materials assessment**

#### **Results**

- 6.3 A fragment of pantile (18mm thick) came from context [6], the fill of a sleeper impression. The piece has one sanded face and has part of the tile nib which was used for hanging it onto the roofing lath. Pantiles were in use in Britain from the 17th century onwards.

### **Recommendation**

- 6.4 No further work is recommended.

## **7. The palaeoenvironmental evidence**

- 7.1 No material suitable for palaeoenvironmental assessment was identified.

## **8. The archaeological resource**

- 8.1 Elements of the waggonway detected in the geophysical survey (Archaeological Services 2018b), including parallel drainage ditches and sleeper impressions, were identified in Trench 7.
- 8.2 Furrows, the remains of medieval or post-medieval ploughing, were recorded in Trenches 4, 6 and 7, cut into the natural subsoil. These relate to two separate ploughing regimes.
- 8.3 No significant archaeological resource deposits were identified in the remaining trenches.
- 8.4 Late 18th/19th century pottery was recovered from the waggonway features.
- 8.5 The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the archaeological resource addresses the following agenda items:

### **Later Medieval**

MDii Landscape

### **Post-medieval**

PM2 Early railways

## **9. Impact assessment**

- 9.1 Development of the site is unlikely to impact on any significant archaeological deposits over the majority of the site.
- 9.2 Groundworks associated with the development are likely to remove or truncate the remains of a waggonway in the vicinity of Trench 7, in the centre of the site; this

impact has been mitigated by the archaeological excavation and recording of the remains.

## **10. Recommendations**

- 10.1 No archaeological resource was identified which requires preservation *in situ*.
- 10.2 The area of the waggonway to be impacted by the drainage scheme was wholly investigated as part of this scheme of works, and therefore no further archaeological work is required.

## **11. Sources**

Archaeological Services 2018a *Proposed Drainage Route, Lambton Park, County Durham: archaeological desk-based assessment & geophysical survey*. Unpublished report **4791**, Archaeological Services Durham University

Archaeological Services 2018b, *Drainage Route 2, Lambton Park, County Durham: geophysical survey*. Unpublished report **4891**, Archaeological Services Durham University

Archaeological Services 2018c, *East Village, Lambton Park, Lambton Estate, County Durham: archaeological evaluation*. Unpublished report **4794**, Archaeological Services Durham University

Natural England, 2013 *National Character Area Profile: 14. Tyne and Wear Lowlands*

Petts, D, & Gerrard, C, 2006 *Shared Visions: The North-East Regional Research Framework for the Historic Environment*. Durham

### **Websites**

[www.bgs.ac.uk](http://www.bgs.ac.uk)

## Appendix 1: Data table

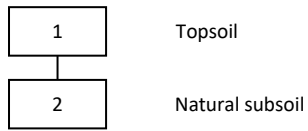
**Table 1.1: Context data**

The \* symbols in the columns at the right indicate the presence of artefacts of the following types: P pottery, C ceramic building material.

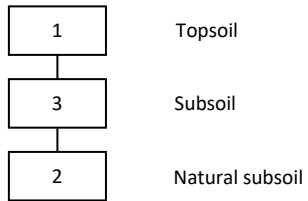
No	Area	Description	P	C
1	All	Topsoil		
2	All	Natural subsoil		
3	3, 2, 8	Subsoil		
4	4, 6, 7	Fill of furrows [F5]		
F5	4, 6, 7	Cut of furrows		
6	7	Fill of sleeper impressions [F7]		*
F7	7	Cut of sleeper impressions		
8	7	Fill of western waggonway ditch [F9]		
F9	7	Cut of western waggonway ditch		
10	8	Made ground		
11	9	Coal-rich deposit		
12	7	Fill of eastern waggonway ditch [F13]		
F13	7	Cut of eastern waggonway ditch		
14	7	Fill of modern gully [F15]	*	
F15	7	Cut of modern gully		
16	7	Fill of narrow rut [F17]	*	
F17	7	Cut of narrow rut, east of ditch [F13]		
18	7	Fill of narrow intermittent rut [F19]		
F19	7	Cut of narrow intermittent rut, east of ditch [F9]		
20	7	Fill of track rut [F21]		
F21	7	Cut of track rut		
22	7	Fill of narrow intermittent rut [F23]		
F23	7	Cut of narrow intermittent rut, west of ditch [F13]		

## Appendix 2: Stratigraphic matrices

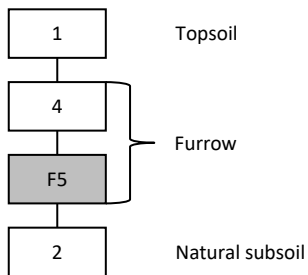
### Trenches 1, 5 and 10



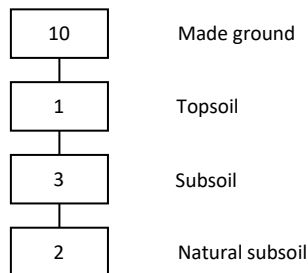
### Trenches 2 and 3



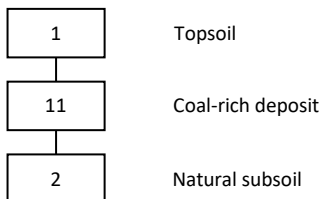
### Trenches 4 and 6



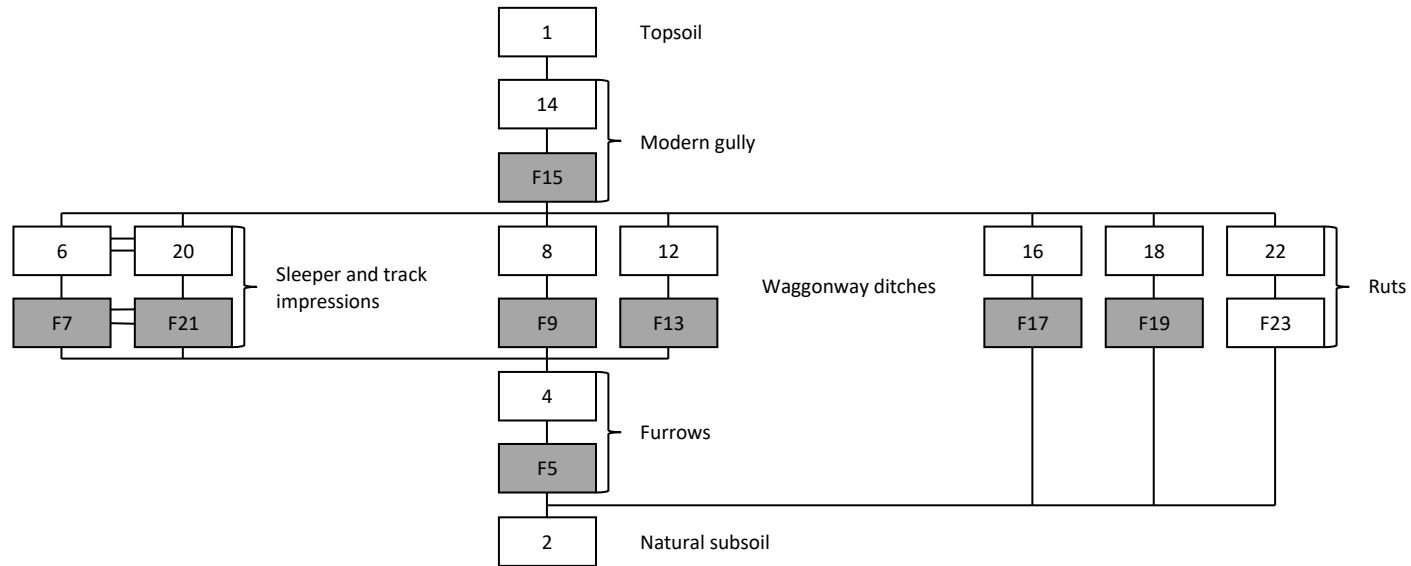
### Trench 8



### Trench 9



### Trench 7





Photograph 1: Trench 1, looking south-east



Photograph 2: Trench 7, waggonway ditches [F9] and [F13] (right) and associated features, looking north

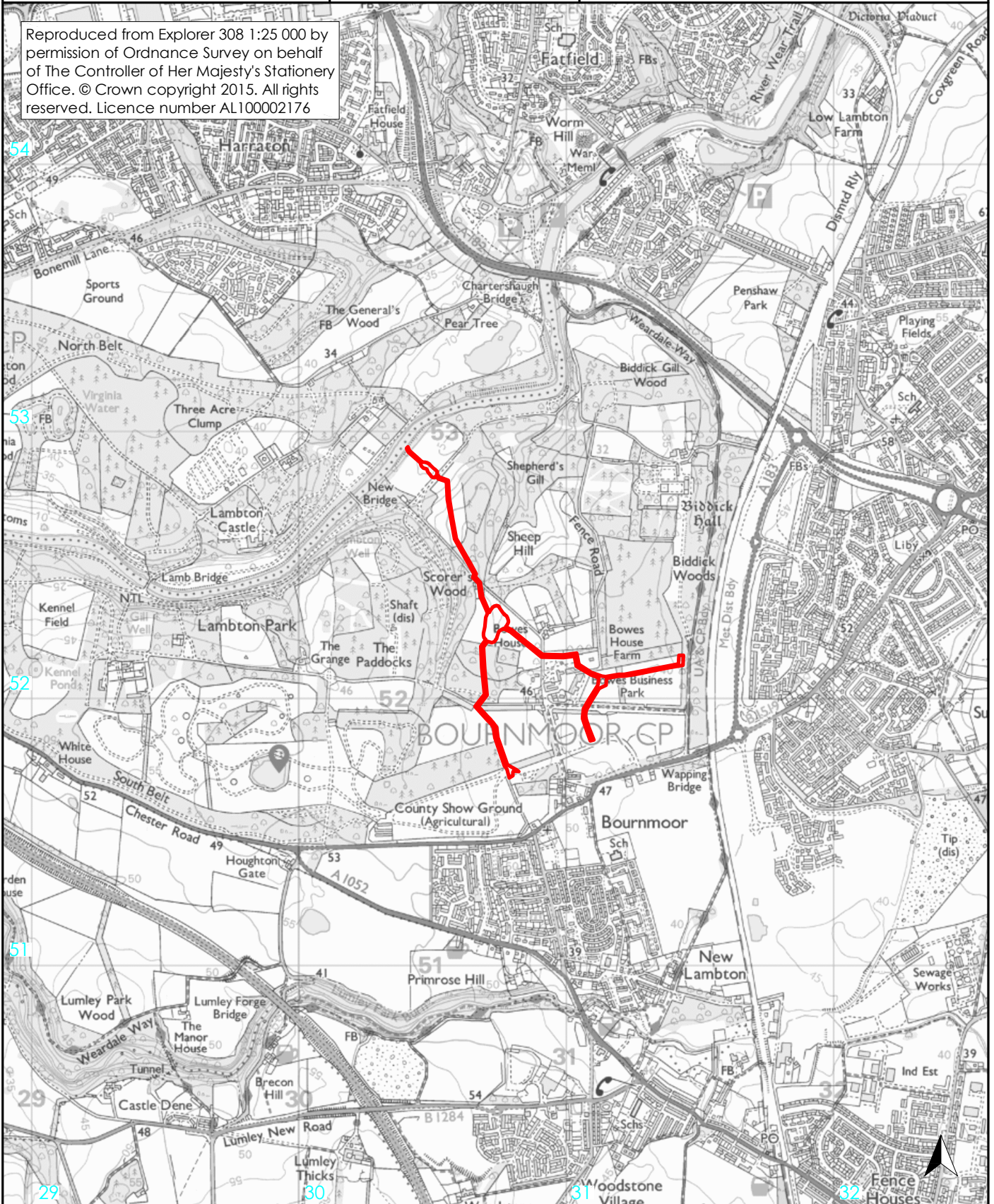


Photograph 3: Trench 7, sleeper impression [F7], looking east



Photograph 4: Trench 10, looking east

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 site location

0 1km  
scale 1:20 000 for A4 plot



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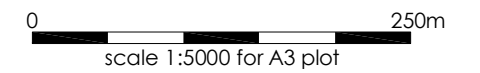
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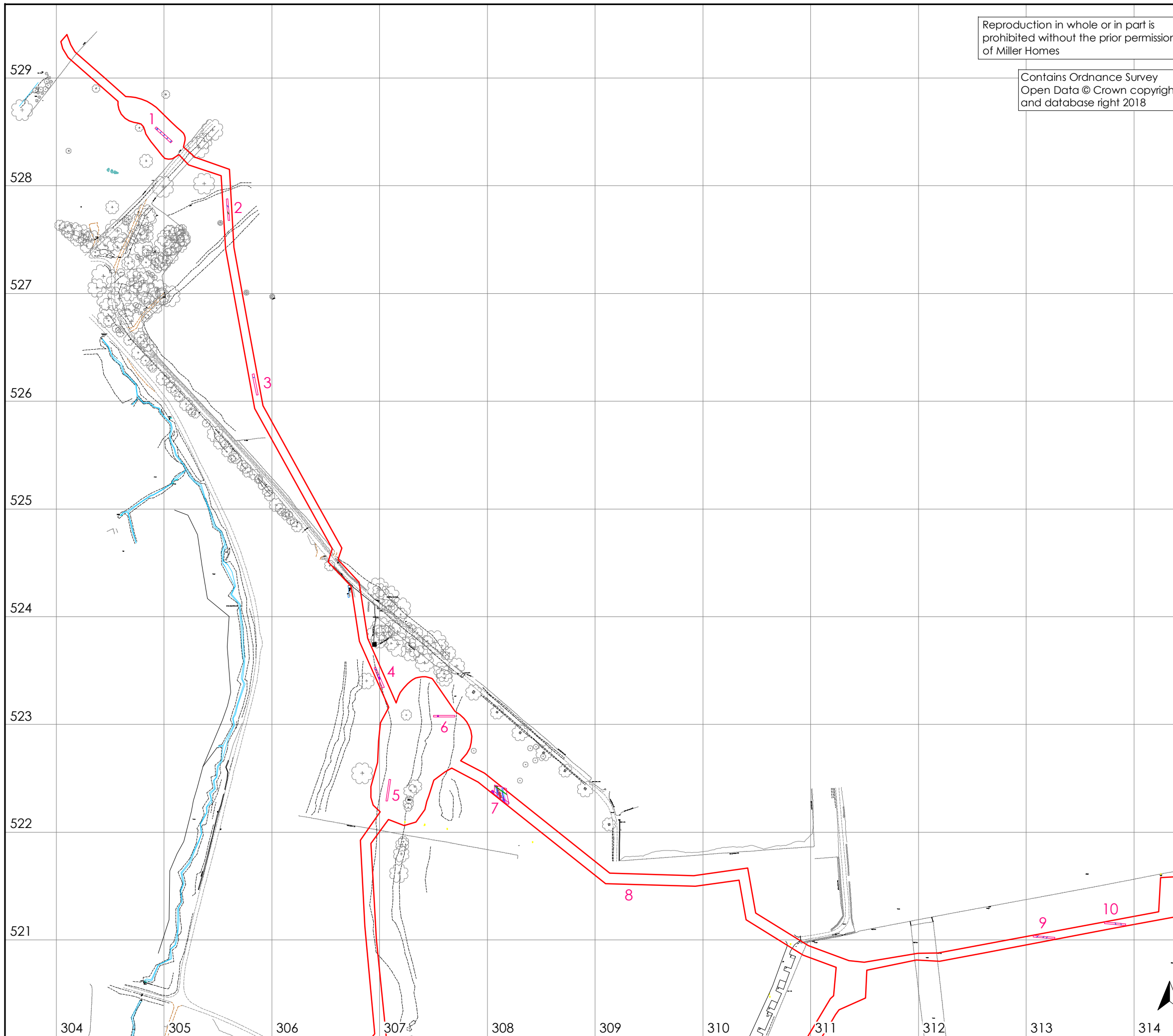
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Figure 2: Trench location



-  proposed development
-  edge of excavation
-  furrow
-  ditch
-  feature
-  modern
-  pipe
-  sleeper

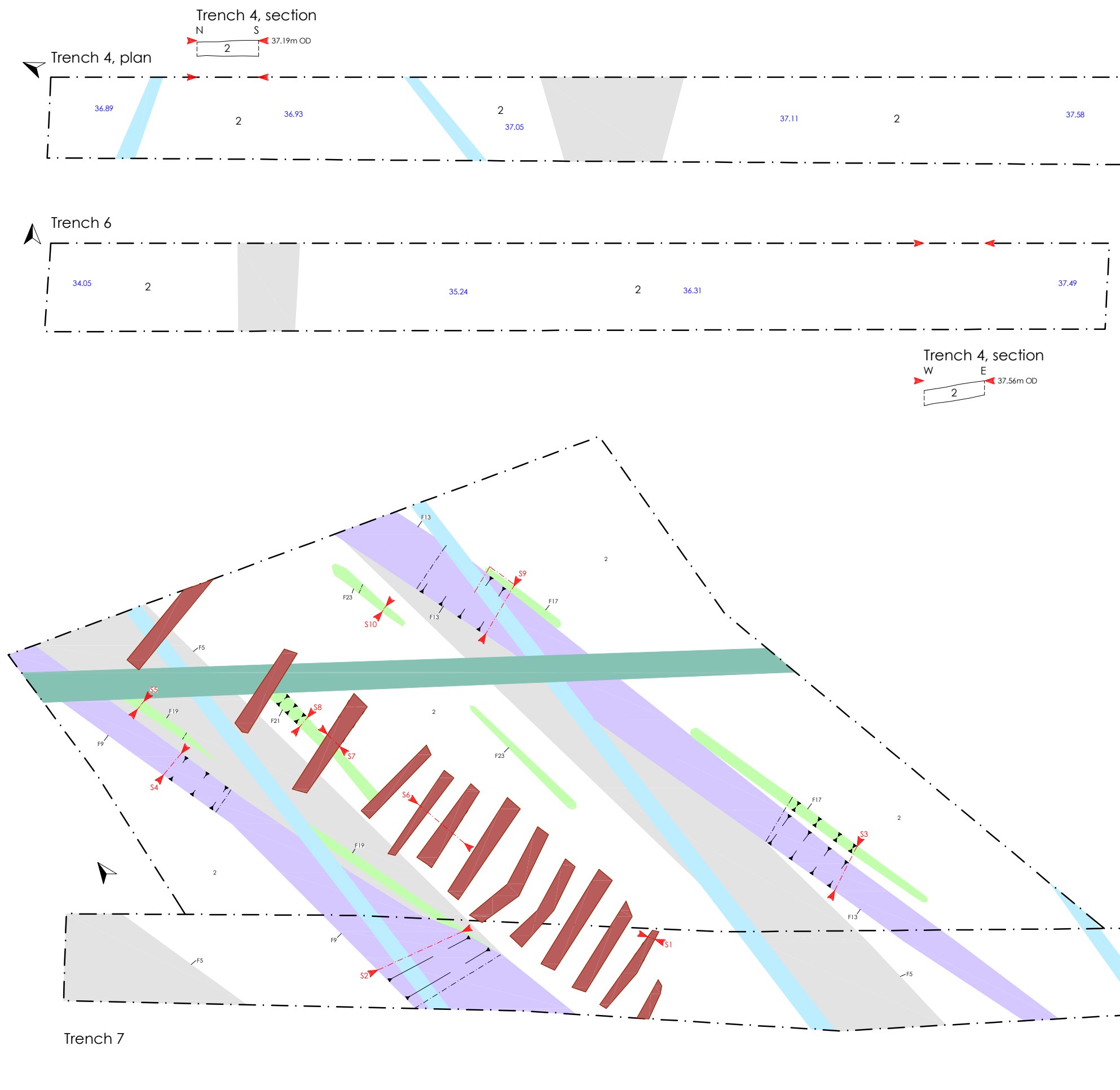
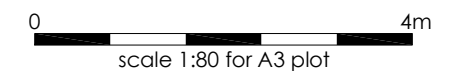


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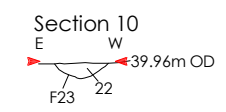
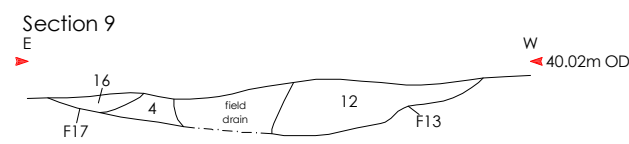
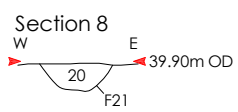
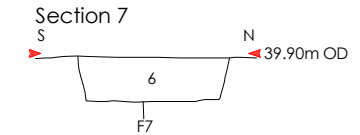
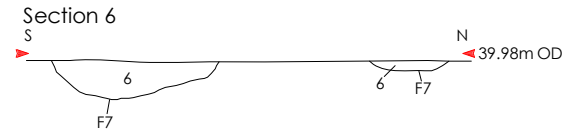
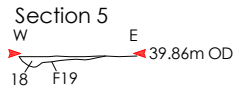
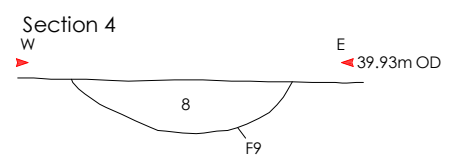
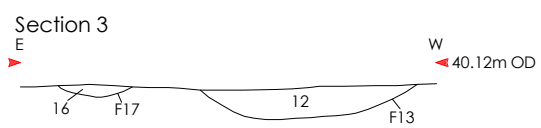
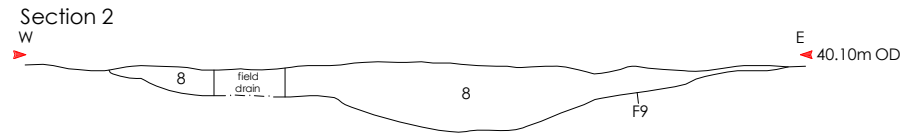
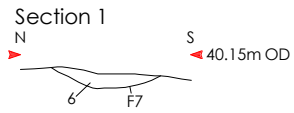
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Figure 3: Trenches 4 and 6, plans and sections and Trench 7 plan



- edge of excavation
- section
- height m OD
- furrow (F5)
- ditch
- feature
- modern
- drain
- sleeper



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Figure 4: Sections

