

---

<b>Project:</b>	UU41 Blacker Farm, Pilling Lane Sewer Relay		
<b>BIM reference:</b>	UU41-MMB-00-ZZ-DO-C-0010	<b>Revision:</b>	A
<b>Prepared by:</b>	Zara Burn	<b>Date:</b>	11th February 2021
<b>Approved by:</b>	Ross Cameron	<b>Checked by:</b>	Vicky Nash
<b>Subject:</b>	Archaeological Site Walkover Results		

---

## 1 Introduction

Yorkshire Water Services (YWS) have identified the requirement to refurbish a combined sewer section running through Blacker Woods, Pilling Lane, Skelmanthorpe (centred at National Grid Reference SE 423950, 411150) to improve conveyance and resolve surcharge and pollution risk.

This technical note has been produced by Mott MacDonald (MM) on behalf of Mott MacDonald Bentley (MMB) and their client YWS following an archaeological site walkover at the location of the sewer. The presumed line of the boundary to the medieval Elmley Park known on the West Yorkshire Historic Environment Record (HER) runs through the woods roughly parallel to Park Gate Dike (HER Ref. No. PRN 4607) and a weir is shown on the Ordnance Survey First Edition of 1852 at NGR SE 424176 411125. At the request of West Yorkshire Archaeology Advisory Service (WYAAS) it was recommended in the first instance an archaeological appraisal using historic records, maps, relevant geotechnical information and a walkover survey be undertaken to establish the site's potential and determine if any remains could be impacted by the proposed works and presented in the form of a technical note.

## 2 Proposed works

The existing 300mm diameter cast iron sewer runs through Blacker Woods between a number of manholes. There are two sections of raised/above ground pipe supported on a combination of brick and concrete stanchions (highlighted in yellow on **Figure 2.1**) with the remaining section below ground.

### 2.1 Proposed solution

The following works (also shown on **Figure 2.2** below) are being undertaken to improve conveyance and resolve surcharge and pollution risk:

- Offline replacement of the 66m above ground pipe 2 between manhole 1102 and manhole 2101;
- Redundant pipework and stanchions to be demolished and removed down to existing ground level;
- Construction of 9no 450 x 450mm RC support columns with 1200 x 1200 x 300mm thick RC pad foundation to support the RC columns for the above ground pipe;
- Construct 2nos of 1200mm diameter Type C manholes between the offline sewer;
- above ground pipe 1 to be retained;

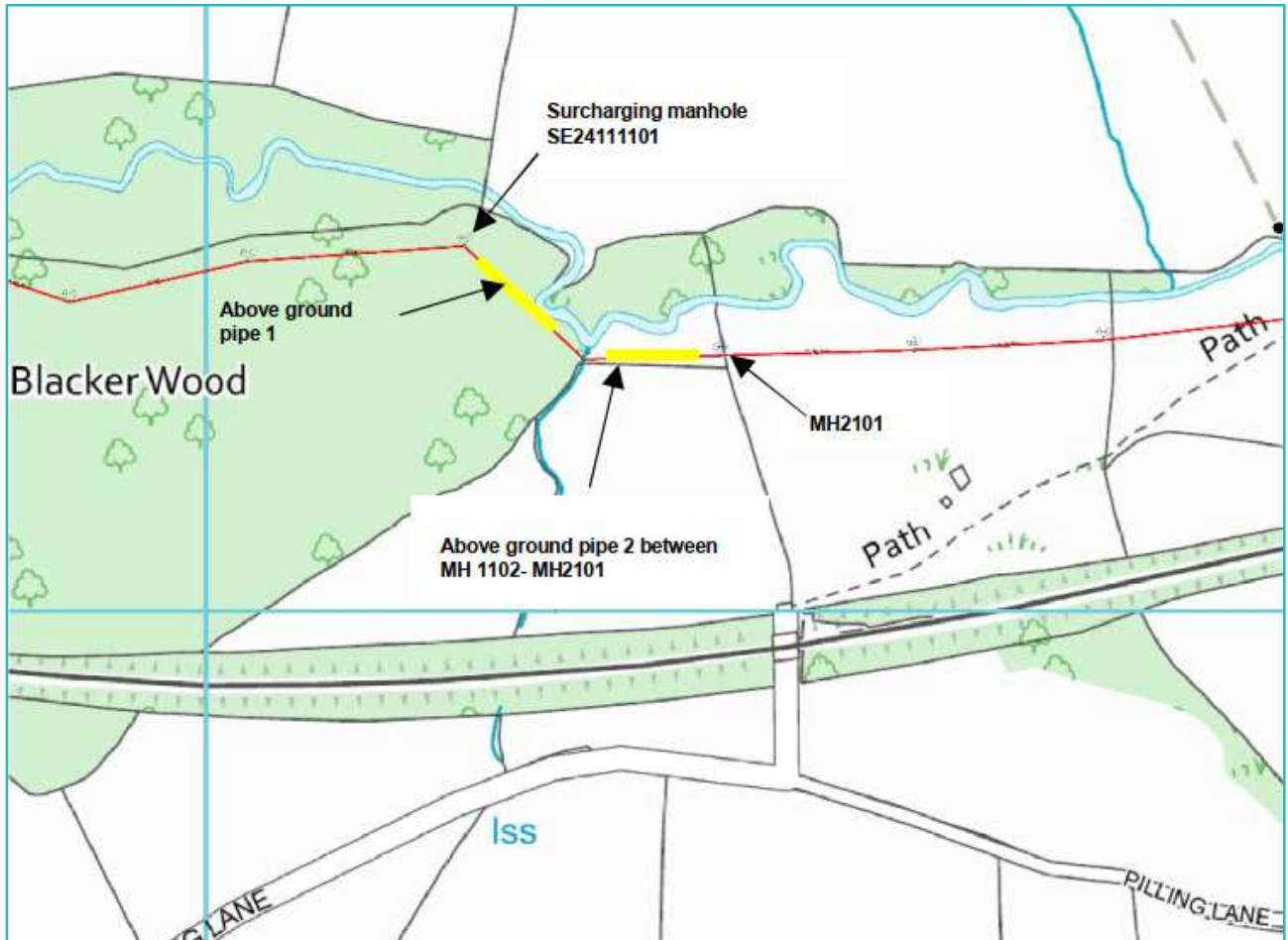
This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

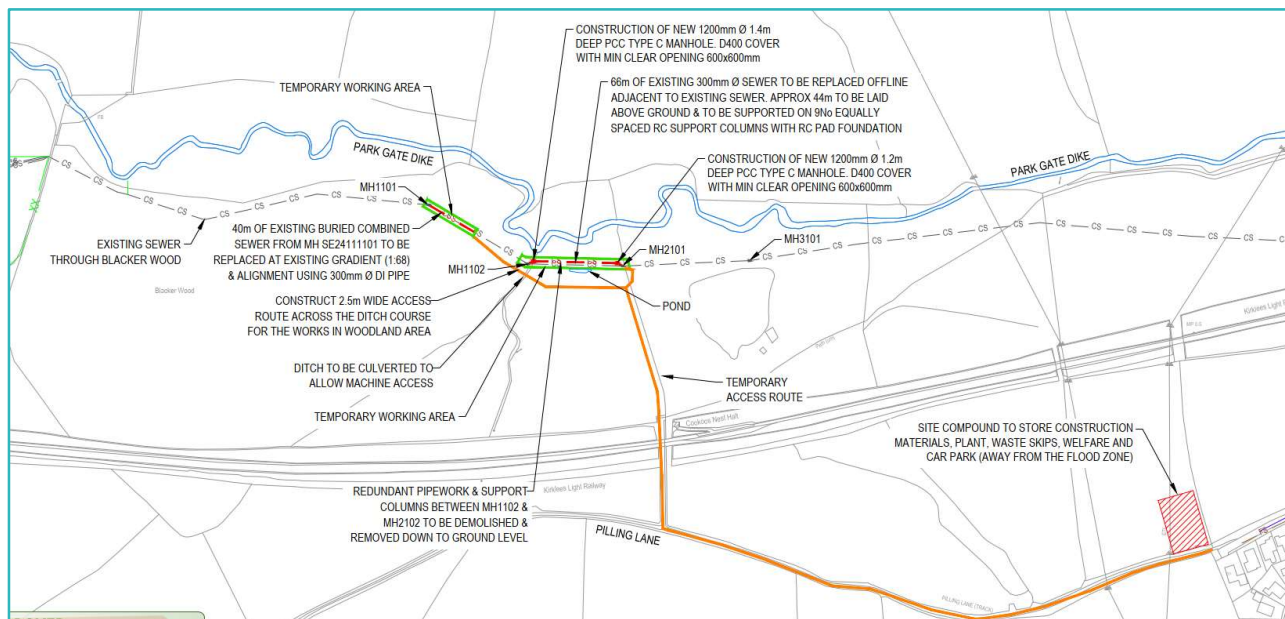
- Replace existing buried combined sewer from manhole SE24111101 to tie into existing sewer above ground pipe 1;
- Existing manhole at SE2411101 to be refurbished; and
- Temporary access route to use the existing Pilling Lane (gravel track).

**Figure 2.1: Location of above ground pipes in Blacker Woods**



Source: MMB, Ref: Blacker Farm, Sewer Relay – Definition Works

Figure 2.2: Proposed works



Source: MMB, Ref: UU41-MMB-00-ZZ-DR-C-1001

### 3 Methodology

A site walkover to Blacker Woods was undertaken on 27th January 2021 by a Senior Archaeology and Heritage consultant from MM. The walkover was intended to trace and photograph the presumed line of the boundary to the medieval Elmley Park known on the West Yorkshire HER which runs through the woods roughly parallel to Park Gate Dike (PRN 4607). In addition, the walkover aimed to identify and record any other previously unknown archaeological earthworks, features or finds not evidenced through previous research or listed on the West Yorkshire HER which could potentially be affected by the works and photographed.

Refer to photographic archive included in Appendix A.

The walkover was undertaken in accordance with the Chartered Institute for Archaeologists (CIfA) Code of Conduct (2014).

#### 3.1 Study area

A search area of 750m radius from the centre point of the proposed works was established to identify heritage assets prior to the walkover. This was considered to be proportionate to the scale and nature of the proposed works and had been agreed with the WYAAS prior. All designated and all non-designated heritage assets within the 750m search area have been considered for their potential to be impacted by the works in accordance with National Planning Policy Framework (2019), specifically paragraph 199 which states that Local Planning Authorities should require that and heritage asset which is to be lost should be recorded and the understanding of its significance advanced. This evidence and any archive generated should be made publicly accessible.

A plan showing the study area with all known heritage asset can be found in Appendix B.1.

#### 3.2 Resources

The following resources have been consulted in the process of compiling this technical note:

- a search of the West Yorkshire HER within 750m for non-designated archaeological sites, investigations, find spots, unregistered parks and gardens, National Mapping Programme data and conservation areas within the study area;
- a search of the Historic England National Heritage List for England (NHLE) dataset for scheduled monuments, listed buildings, registered parks and gardens, registered battlefields and world heritage sites within the study area;
- an inspection of geological sources (maps) and previous ground investigations undertaken on site;
- an inspection of the cartographic evidence for the land use history of the site; and
- an assessment of relevant published and unpublished historical sources online; and
- a site walkover of the proposed works area.

A full list of sources referenced is included within Section 6 of this technical note.

### 3.3 Assumptions and limitations

This technical note has been produced using the best information available at the time of writing.

The assessment is reliant on available data. All non-designated data is up to date as of January 2021.

Databases are limited in their ability to predict new sites and the information from the HER has been used as a starting point to inform the site walkover rather than as a definite list. Where there is an absence of data, professional judgement has been used to reach informed decisions regarding the historic environment.

Due to the COVID-19 Pandemic it was not possible to undertake any visits to archives or local studies libraries.

## 4 Archaeological baseline

### 4.1 Geology and ground investigations

The bedrock of the area as recorded on the British Geology Survey (BGS) consists of the Pennine Lower Coal Measures Formation comprising interbedded mudstone, siltstone and sandstone. The BGS does not have coverage of the known superficial deposits within the proposed works area. However, a Geotechnical Desk Study (Ref: UU19-MMB-00-ZZ-DO-C-OO10) undertaken as part of definition works identified superficial deposits of alluvium comprising clay, sand and gravel with some known river terrace deposits. These deposits have likely accumulated due to presence of Park Gate Dike. They exist as blankets of floodplain deposits and are sometimes waterlogged providing an environment suitable for good preservation of environmental materials. The archaeological potential is likely to be higher in these types of deposits.

Six windowless sample exploratory boreholes (WS1-6) were undertaken to understand the below ground stratigraphy on site. The locations are shown on **Figure 4.1**. WS1-3 covered the area around above ground pipe 2 and WS4-WS6 around above ground pipe 1. Made ground was encountered across WS2 and WS4-WS6 ranging from 0.40m up to a depth of 1.80m which overlaid grey silty clays. In WS1 and WS3 dark brown sandy clay approximately 0.15m deep overlaid brownish dark orange clay with some gravelly sand inclusions. Where made ground survives on site, presumably from when the current sewer was laid, archaeological deposits will have been removed.

**Figure 4.1: Borehole locations**

Source: MMB, Ref: UU19-MMB-00-ZZ-DO-C-0010 and OpenStreetMap (2011)

## 4.2 Known heritage assets

The location of known heritage assets within the study area are shown in Appendix B.1.

There are three Grade II listed buildings within the 750m study area, including:

- 22 AND 24, KING STREET (NHLE no. 1313366);
- 12 AND 14, QUEEN STREET (NHLE no. 1299849); and
- MANOR FARM JUBILEE YOUTH CENTRE (NHLE no. 1299907).

The nearest is approximately 680m south-west from the proposed works. The works are therefore not considered to have an impact on these designated heritage assets due to the distance.

The remains of Emley Park medieval boundary lies within Blacker Woods at the proposed works area (PRN 4607).

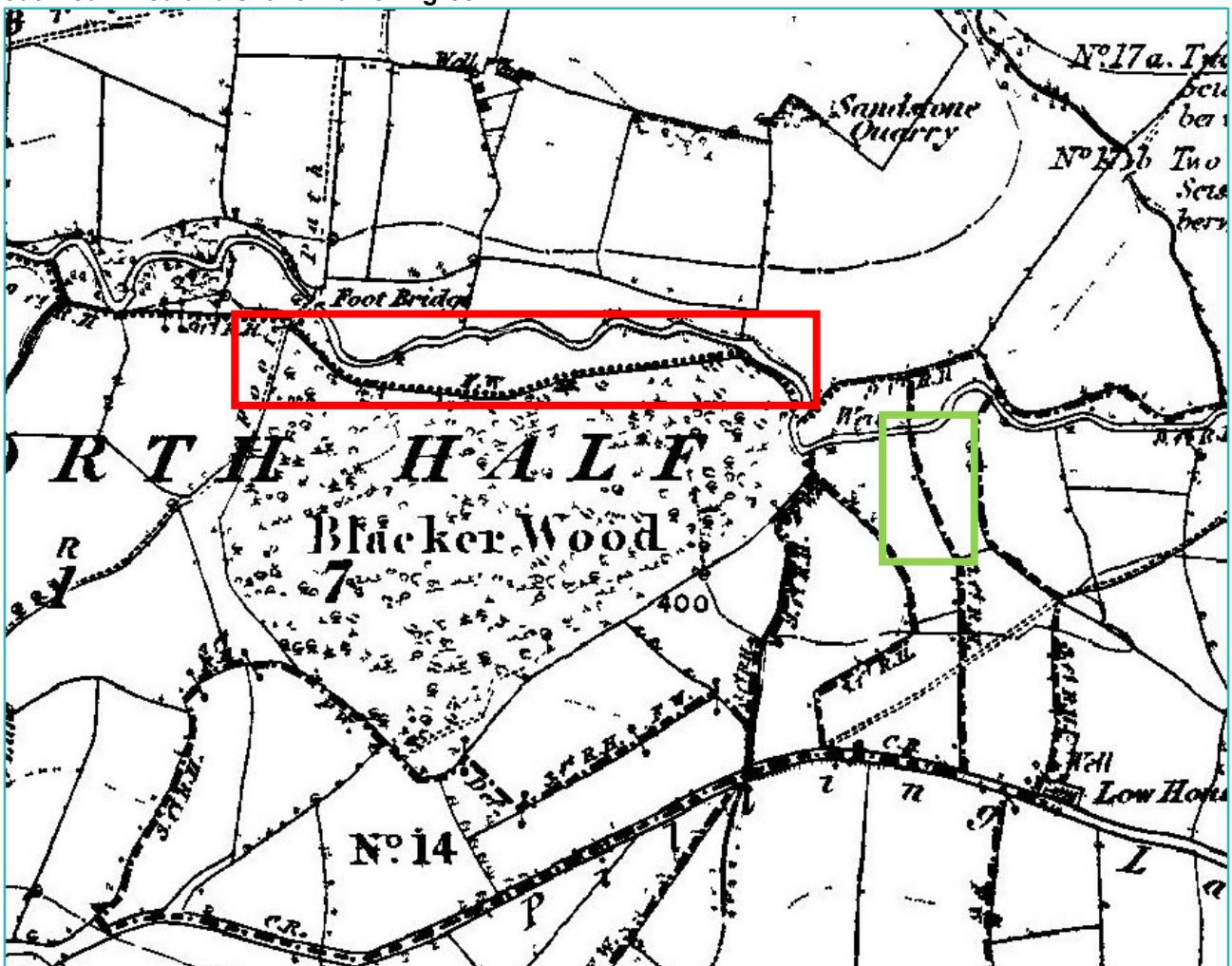
Within the 750m study area there is a findspot of a Roman brooch (PRN 13647; 500m south of the proposed works area), potential remains of a medieval chapel at Upper Chapel Royd (PRN 743; 500m south-west of the proposed works area), a 13th/14th century timber framed house (PRN 9405; 500m south-west of the proposed works area) and documentary evidence suggesting two extant post-medieval woollen mills, with associated workers cottage, and/or engine house/dye house (PRN 14875 and 14876; 500m south-west of the proposed works area).

#### 4.2.1 Emley Park medieval boundary (PRN 4607)

Emley Park boundary is recorded as a series of hedge and footpaths following a circuit from SE 234 120 to SE 267 110 on the West Yorkshire HER. It was recorded during a field visit in 1985. The full route is shown in Appendix B.1. The field survey recorded how the park boundary followed the northern lip of the Dearne Valley escarpment removing the requirement for an inner ditch. It is presumed to be the parish boundary between Emley and Cumberworth and Cumberworth Half. The first edition ordnance survey depicts the boundary (highlighted in red on **Figure 4.2** below) defining the northern extent of Blacker Woods before meeting Park Gate Dike crossing the dike and then continuing north-eastwards on the northern side of the dike. The boundary is noted on later county series maps as Parly. Div. & U.D Bdy (Parliamentary Divisional and Unitary District Boundary). Emley was a parish in the lower division of the wapentake of Agbrigg, West Riding County York, situated on a tributary of the river Dearne and includes the hamlets of Cumberworth-Half and Skelmanthorpe.

During the site walkover, the boundary was traced as a well-defined narrow footpath following the course of Park Gate Dike measuring c. 1.20m wide (see Photo A2.1 and Appendix B.2). The footpath was much less well-defined between manhole SE 241111101 and above ground pipe 1 suggesting a degree of disturbance when the sewer was initially constructed. Equally there was no trace of the boundary beyond manhole 1102 suggesting the known route from historic maps and the previous field survey in 1985 which show the boundary crossing Park Gate Dike and continuing north-eastwards are accurate (see **Photo A2.2**).

**Figure 4.2: The first edition Ordnance Survey plan, 1851-1854 depicting Emley Park Boundary, outlined in red and shallow dike in green**



Source: Ordnance Survey Plan of Yorkshire, Published 1854

### 4.3 Unknown heritage assets

During the site walkover, two potential unknown heritage assets were identified. There was no evidence of the weir shown on the Ordnance Survey First Edition of 1852 at NGR SE 424176 411125. Later maps of the area do not record the weir and therefore it is presumed to have been removed between 1852 and 1906.

The first potential previously unknown heritage asset was a shallow linear running on an approximate north to south alignment in the field immediately south of the proposed working area (see **Photo A2.3**). The feature was identified running between two trees as a very shallow depression. It was approximately 1.00m wide and could not be traced beyond the most northern tree. The first edition Ordnance depicts the features as a former field boundary or shallow dike (highlighted as green on **Figure 4.2**) running between the later known position of the Kirklees Light Railway and Park Gate Dike. The slightly curving nature of the feature, its route heading towards Park Gate Dike and the surviving shallow nature would suggest a shallow dyke.

The second, much later feature was a set of concrete steps close to above ground pipe 2 at NGR SE 424094 411139 (see **Photo A2.4**). They comprised a concrete curved kerbstone and six lengths of concrete slabs approximately 2.5m long. These steps were positioned on sloping ground close to the position of above ground pipe 2 and were likely inserted when the pipe was constructed to easily get down to the lower boggy ground.

## 5 Recommendations

- Emley Park medieval boundary survives as a well-defined footpath through Blacker Woods. The existing below ground sewer between above ground pipe 1 and manhole SE241111101 lie to the south of the boundary and therefore works will not impact the feature. It is recommended during construction any construction vehicles be kept off and away from the footpath between manhole SE241111101 and Park Gate Dike. This will allow the boundary to be preserved in its current state.
- The photographs taken during the site walkover should be made available to the West Yorkshire HER to form part of the record for Emley Park medieval boundary (Ref: PRN 4607).
- Borehole logs at both areas of proposed excavation indicate a significant depth of made ground and disturbance. Excavations for the sewer relay involve replacing the existing buried combined sewer where archaeological remains would have already been removed. No further archaeological work is recommended during these excavations due to previous disturbance.
- The concrete steps close to the position of above ground pipe 2, although relatively modern in date should be preserved in-situ. Construction vehicles should be kept away from the feature to prevent any damage.
- The access route will utilise existing tracks as far as possible. Where construction machinery needs to be brought through the field to the south of proposed works area. The route of the shallow dyke should be avoided to preserve the feature in-situ. The dyke does not appear to continue beyond the limit of the tree closest to the working area and therefore any works beyond this point would not impact on the feature.

## 6 References

British Geological Survey (BGS) (2020) Geology of Britain [Online] Available at: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> [Accessed: 01/02/2021]

Chartered Institute for Archaeologists (2014) Code of Conduct. Available at <https://www.archaeologists.net/sites/default/files/CodesofConduct.pdf> [Accessed: 26/01/2021]

Council for British Archaeology (1985), Group 4 Register for 1985, p28.

Mott MacDonald Bentley (2020), Blacker Farm, Sewer Relay – Definition Works Technical Memo (Ref: UU19-MMB-00-ZZ-DO-C-OO10), Unpublished Report

Old-maps. N.d. [Online] Available at: <https://www.old-maps.co.uk/#/> [Accessed: 01/02/202]



## A. Photo Archive

### A.1 Photographic Listing

Site name		UU41 Blacker Woods, Piling Lane Sewer Relay				
Address		Piling Lane, Skelmanthorpe, Huddersfield				
Type		Digital				
Photo number	Image reference number	Description	Direction facing	Scale	Date	Taken by
1	IMG_20210127_082135	Emley Park Boundary HER Ref. 4607	North-west	2m	27/01/2021	Zara Burn
2	IMG_20210127_082211	Emley Park Boundary HER Ref. 4607	North-west	2m	27/01/2021	Zara Burn
3	IMG_20210127_082417	Emley Park Boundary HER Ref. 4607	West	2m	27/01/2021	Zara Burn
4	IMG_20210127_082553	Emley Park Boundary HER Ref. 4607	South-east	2m	27/01/2021	Zara Burn
5	IMG_20210127_082628	Western existing sewer pipe	South-east	n/a	27/01/2021	Zara Burn
6	IMG_20210127_082753	Emley Park Boundary HER Ref. 4607	South-east	2m	27/01/2021	Zara Burn
7	IMG_20210127_082819	Possible former extraction pit with above ground pipe 1 in the background	South	2m	27/01/2021	Zara Burn
8	IMG_20210127_082855	Emley Park Boundary HER Ref. 4607	South-east	2m	27/01/2021	Zara Burn
9	IMG_20210127_082956	Emley Park Boundary HER Ref. 4607	South-east	2m	27/01/2021	Zara Burn
10	IMG_20210127_083046	Footpath through Blacker Woods	South	2m	27/01/2021	Zara Burn
11	IMG_20210127_083102	Footpath through Blacker Woods	South	2m	27/01/2021	Zara Burn
12	IMG_20210127_083125	Above ground pipe 1	West	n/a	27/01/2021	Zara Burn
13	IMG_20210127_083229	General view of Blacker Woods	South-east	2m	27/01/2021	Zara Burn
14	IMG_20210127_083312	Proposed area of sewer pipe to be relaid below ground level	South-east	2m	27/01/2021	Zara Burn
15	IMG_20210127_083359	Footpath through Blacker Woods	South-west	2m	27/01/2021	Zara Burn
16	IMG_20210127_083416	Footpath through Blacker Woods	South-west	2m	27/01/2021	Zara Burn
17	IMG_20210127_083539	Drystone wall along shallow brook	North-east	2m	27/01/2021	Zara Burn
18	IMG_20210127_083553	Footbridge across shallow brook	South	n/a	27/01/2021	Zara Burn
19	IMG_20210127_083637	General view of above ground pipe 2	East	n/a	27/01/2021	Zara Burn
20	IMG_20210127_083658	Proposed area of sewer pipe to be relaid below ground level	North-west	2m	27/01/2021	Zara Burn
21	IMG_20210127_083828	General view of field to south of temporary working area	South-east	n/a	27/01/2021	Zara Burn

22	IMG_20210127_083944	General view of above ground pipe 2	North-east	n/a	27/01/2021	Zara Burn
23	IMG_20210127_084010	Concrete steps near above ground pipe 2	South	2m	27/01/2021	Zara Burn
24	IMG_20210127_084038	Concrete steps near above ground pipe 2	East	2m	27/01/2021	Zara Burn
25	IMG_20210127_084102	Concrete steps near above ground pipe 2	South	2m	27/01/2021	Zara Burn
26	IMG_20210127_084706	General view of above ground pipe 2	North-west	n/a	27/01/2021	Zara Burn
27	IMG_20210127_084715	General view of field to south of temporary working area	South	n/a	27/01/2021	Zara Burn
28	IMG_20210127_084749	Possible shallow dyke in field south of temporary working area	South	n/a	27/01/2021	Zara Burn
29	IMG_20210127_084825	Possible shallow dyke in field south of temporary working area	South	2m	27/01/2021	Zara Burn
30	IMG_20210127_084953	Close up view of shallow dyke	South	2m	27/01/2021	Zara Burn
31	IMG_20210127_085431	Shallow brook leading towards Park Gate Dike	South	n/a	27/01/2021	Zara Burn
32	IMG_20210127_085510	General overview shot of temporary working area	North-east	n/a	27/01/2021	Zara Burn
33	IMG_20210127_085635	View of Park Gate Dike	North-east	n/a	27/01/2021	Zara Burn
34	IMG_20210127_085733	Close up view of made-ground	South-east	n/a	27/01/2021	Zara Burn
35	IMG_20210127_085830	General view of Park Gate Dike and Emley Park Boundary HER Ref. 4607	North-west	n/a	27/01/2021	Zara Burn
36	IMG_20210127_085931	General view of Park Gate Dike and Emley Park Boundary HER Ref. 4607	North-west	2m	27/01/2021	Zara Burn
37	IMG_20210127_090727	View of footpath through Blacker Woods	West	2m	27/01/2021	Zara Burn
38	IMG_20210127_091156	Possible shallow dyke in field south of temporary working area	South	n/a	27/01/2021	Zara Burn
39	IMG_20210127_091424	View of Bridge over Kirklees Light Railway	South	n/a	27/01/2021	Zara Burn
40	IMG_20210127_091553	View of Bridge over Kirklees Light Railway and Access Route	South	n/a	27/01/2021	Zara Burn
41	IMG_20210127_091705	View of Access Route	East by North-east	n/a	27/01/2021	Zara Burn
42	IMG_20210127_091709	View of Access Route	West	n/a	27/01/2021	Zara Burn

## A.2 Site photos

**Photo A2.1: General view of Park Gate Dike and Emley Park Boundary  
HER Ref. 4607. Facing North-west**



Source: MM, 2021

**Photo A2.2: Emley Park Boundary HER Ref. 4607. Facing South-east**



Source: MM, 2021

**Photo A2.3: Possible shallow dyke in field south of temporary working area. Facing South.**



Source: MM, 2021

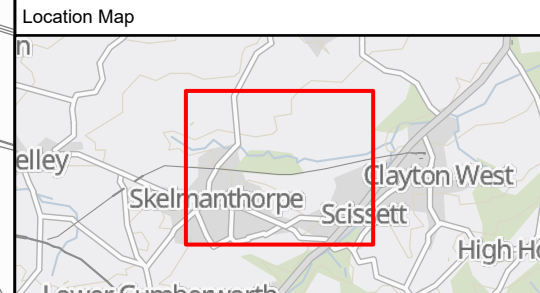
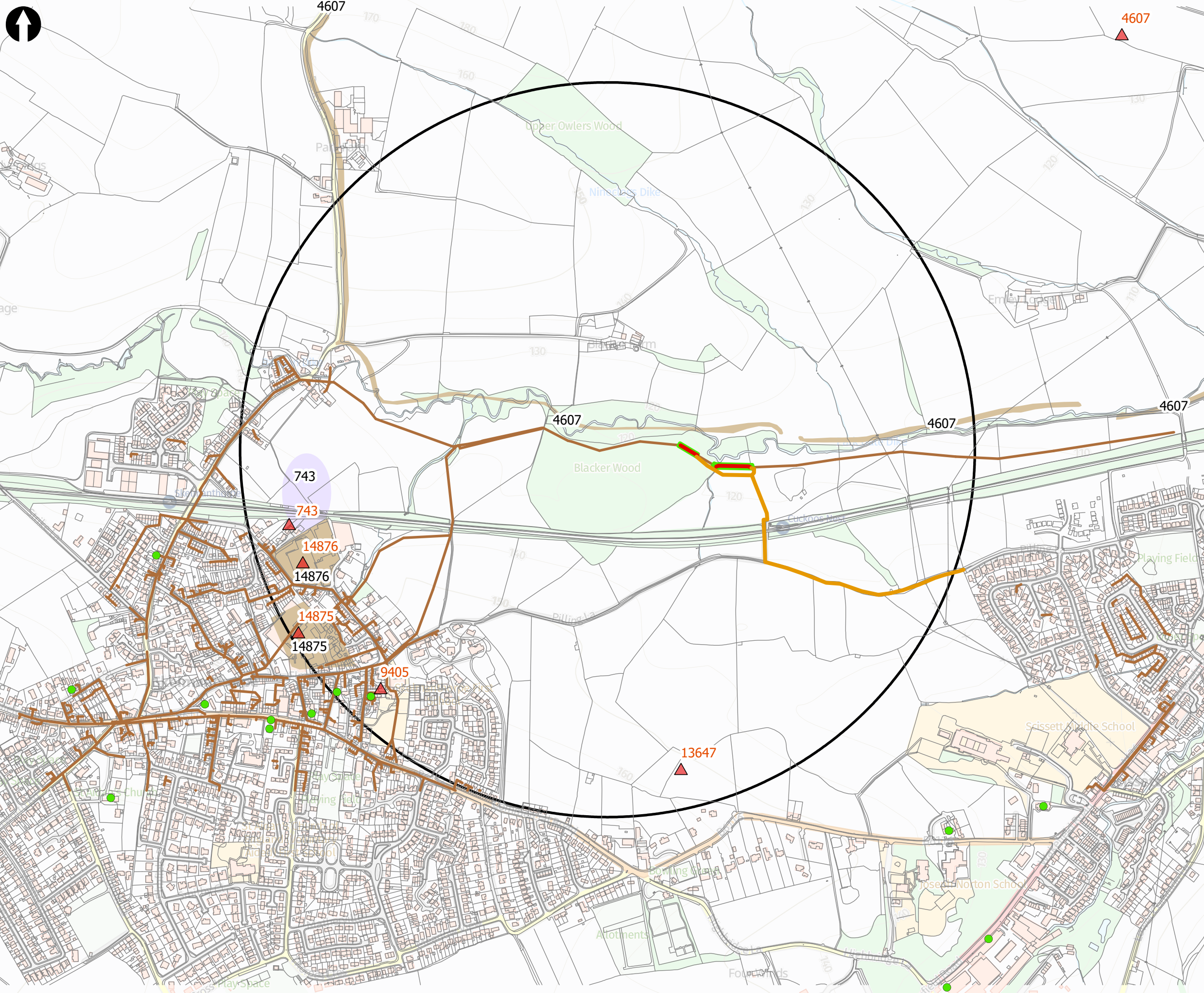
**Photo A2.4: Concrete steps near above ground pipe 2. Facing East.**



Source: MM, 2021

## **B. Drawings**

### **B.1 UU41-MMB-00-ZZ-DO-C-1501 Known Heritage Assets**



Key to Symbols

- WYHER PRNs
- Grade II Listed Building
- Class III
- Class IV
- 750m Buffer
- Access Route
- Sewer to be Altered
- Working Area
- Existing Combined Sewer

Notes

West Yorkshire Historic Environment Data 2021  
 Contains OS data © Crown Copyright and database right 2020  
 Contains data from OS Zoomstack

Rev	Date	Drawn	Description	Ch'k'd	App'd
01	05/02/2021	WJG	For Information	VN	RC

Mott MacDonald Bentley  
 Bank House  
 27 King Street  
 Leeds  
 LS1 2HL  
 www.mottmacbentley.co.uk

Client



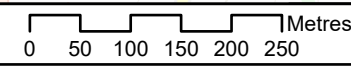
Yorkshire Water Services Ltd  
 Western House,  
 Western Way,  
 Halifax Road,  
 Bradford,  
 BD6 2SZ

Title  
**Blacker Farm, Pilling Lane  
 Sewer Relay  
 Known Heritage Assets**

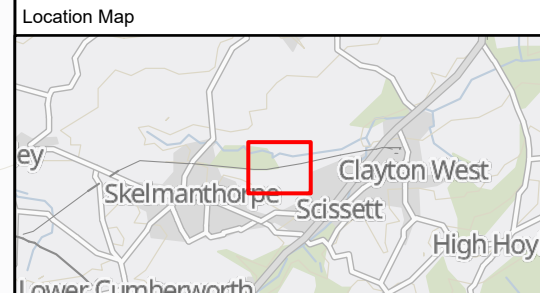
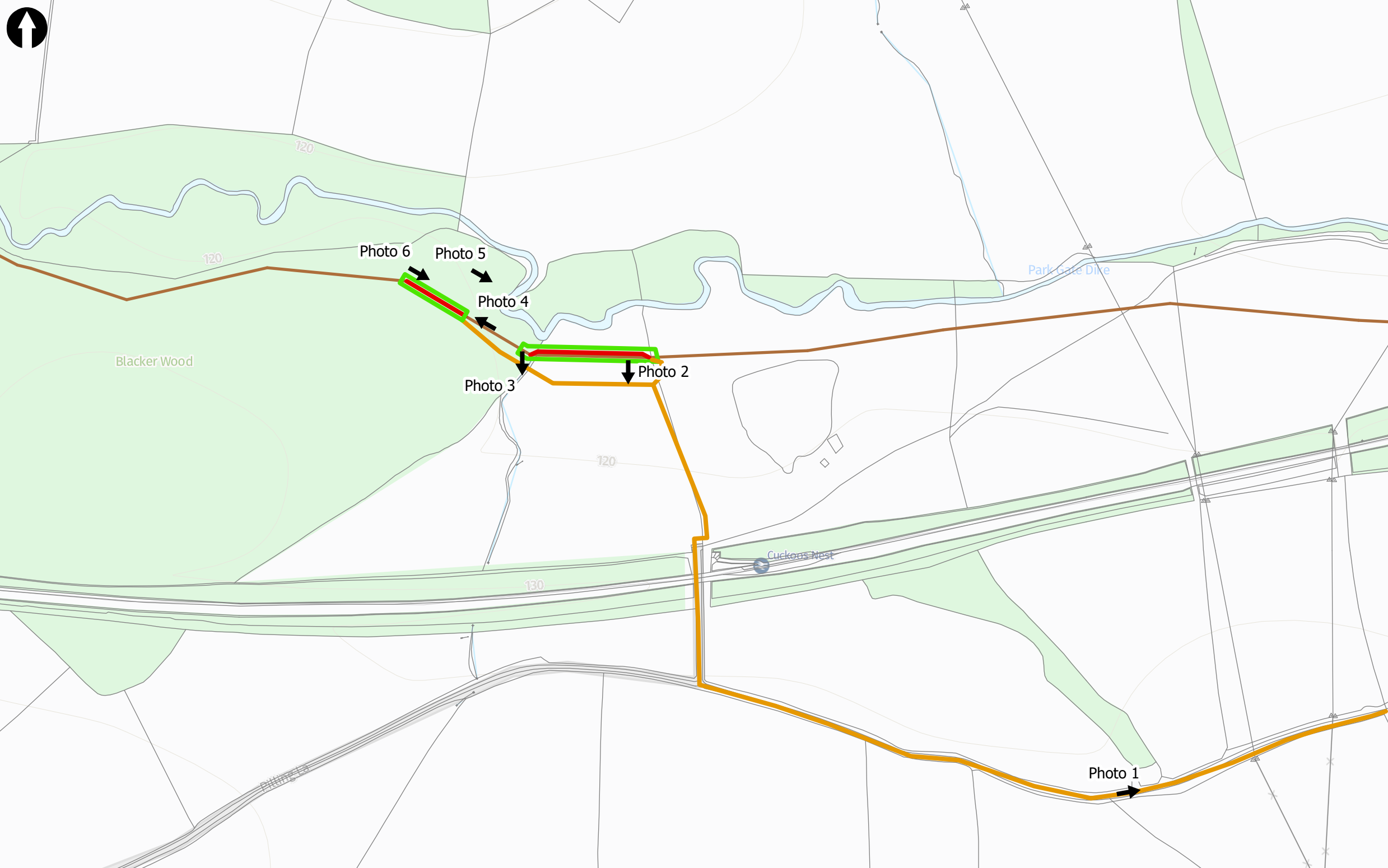
Designed	Z Burn	Check	V Nash
Drawn	WJ Goh	Coordination	-
GIS Check	S Glover	Approved	R Cameron
Scale at A3	Status	Rev	Security
1:7,500	INF	01	STD

Drawing Number  
 UU41-MMB-00-ZZ-DO-C-1501

© Mott MacDonald Ltd.  
 This document is issued for the party which commissioned it and for specific purposes connected with the captioned project only. It should not be relied upon by any other party or used for any other purpose.  
 We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.



## **B.2 UU41-MMB-00-ZZ-DO-C-1502 Photo Location Plan**



**Key to Symbols**

- Photo Points
- Access Route
- Sewer to be Altered
- Working Area
- Existing Combined Sewer

**Notes**

Contains OS data © Crown Copyright and database right 2020  
 Contains data from OS Zoomstack

Rev	Date	Drawn	Description	Ch'k'd	App'd
01	05/02/2021	WJG	For Information	VN	RC

**MMB**  
 MOTT MACDONALD BENTLEY

Mott MacDonald Bentley  
 Bank House  
 27 King Street  
 Leeds  
 LS1 2HL  
 www.mottmacbentley.co.uk

**Client**

Yorkshire Water Services Ltd  
 Western House,  
 Western Way,  
 Halifax Road,  
 Bradford,  
 BD6 2SZ

**Title**

Blacker Farm, Pilling Lane  
 Sewer Relay  
 Photo Location Plan

Designed	Z Burn	Check	V Nash
Drawn	WJ Goh	Coordination	-
GIS Check	S Glover	Approved	R Cameron
Scale at A3	Status	Rev	Security
1:2,500	INF	01	STD

