

Proposed Residential Development Land north of Hookhams Lane Salph End Bedford

> Revision 0: September 2019 Report Reference: 248-SA-01-0

### Land off Hookhams Lane, Salph End



#### Report Originator(s)

Martin Andrews MEng (Hons) CEng MICE MCIHT <u>Director</u> martin.andrews@mac-ltd.co.uk

#### **Revision Record**

Revision	Date	Description	Written	Approved
0	04/09/19	Planning Issue	MJA	MJA

## **Land off Hookhams Lane, Salph End**



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## Land off Hookhams Lane, Salph End



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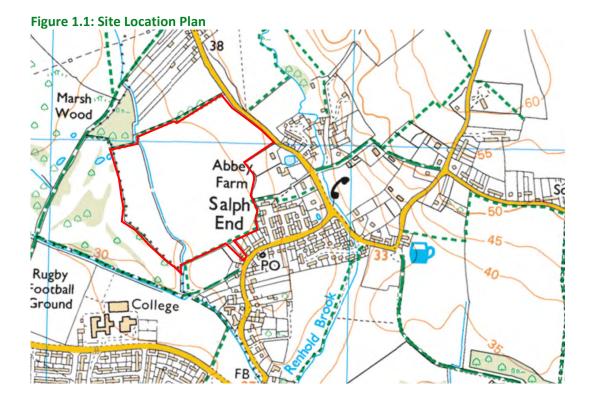
### 1.0 Introduction

#### 1.1 Instructions

- 1.1.1 This Flood Risk Assessment has been prepared for Manor Oak Homes.
- 1.1.2 The report has been prepared to support the submission of an outline planning application.
- 1.1.3 The benefit of this report is to our instructing Client.

#### 1.2 Site Location

1.2.1 The proposed residential development is located at land between Hookhams Lane and Ravensden Road, Salph End, as shown in **Error! Not a valid bookmark self-reference.** below and enclosed in Appendix A. The approximate National Grid Reference for the site is E507519 N252820.



#### Land off Hookhams Lane, Salph End



#### 1.3 Current Use and Description

- 1.3.1 The site currently comprises agricultural land there has been no previous development on the site. The existing site is shown on the topographical survey enclosed in Appendix B.
- 1.3.2 A tributary of Renhold Brook runs through the site and forms the boundary between two of the site's fields.
- 1.3.3 There is a fall from north to south with both parcels either side of the watercourse falling towards the tributary.

#### 1.4 Proposed Development

1.4.1 The proposed development will comprise up to 400 residential dwellings and a two-form entry primary school. The proposed development layout is shown on the plan enclosed in Appendix C.



### 2.0 Existing Assets

#### 2.1 Introduction

2.1.1 A number of companies have been contacted to determine whether they have any assets within the vicinity of the site. Details of the companies contacted and whether they have assets is set out in Table 2.1 below. If there are assets within the vicinity of the site further details are set out within this section.

**Table 2.1: Existing Assets** 

Туре	Company	Asset – yes /	Appendix
		no	
Clean Water	Anglian Water	No	Е
Electricity	UK Power Networks	Yes	F
		£70,000	
Gas	Cadent and Tata Communications	No	G
Telecoms	ВТ	No	Н
Used Water	Anglian Water	No	I
Linesearch	Various – full list set out in Appendix D	No	D

#### 2.2 Clean Water – Anglian Water

2.2.1 There are no assets within the site boundary. However, there is a water supply pipe within the highway of Ravensden Road, adjacent to the site. A copy of the asset plan is enclosed in Appendix E.

#### 2.3 Electricity – UK Power Networks

- 2.3.1 There are various overhead assets located on the site. These can be seen on the asset plan enclosed in Appendix F.
- 2.3.2 The overhead cables within the site will need to be diverted to accommodate the development site. UK Power Networks have provided a budget cost of £70,000 to divert these cables. This is set out in their letter enclosed in Appendix K.

#### 2.4 Gas – Cadent

2.4.1 There are no assets within the site boundary. However, there is a gas pipe within the highway of Hookhams Lane, adjacent to the site. A copy of the asset plan is enclosed in Appendix G.

#### Land off Hookhams Lane, Salph End



#### 2.5 Telecoms – BT & Tata Communications

- 2.5.1 There are no BT assets within the site boundary. However, there are BT assts within the highways of Hookhams Lane and Ravensden Road, adjacent to the site.
- 2.5.2 There are no Tata Communication assets within the site boundary. There is a water supply pipe within the highway of Ravensden Road, adjacent to the site.
- 2.5.3 A copy of the asset plans are enclosed in Appendix H.

#### 2.6 Used Water – Anglian Water

2.6.1 There are no sewers located within the development site. There is a foul water sewer located within the highway of Hookhams Lane near the proposed access. A copy of the asset plan is enclosed in Appendix I.



### 3.0 Capacity Checks

#### 3.1 Introduction

- 3.1.1 Pre-development enquiries have been submitted to the following companies to ascertain whether they have adequate capacity to accommodate the proposed development.
  - Clean Water Anglian Water
  - Electricity UK Power Networks
  - Gas Cadent
  - Used Water Anglian Water

#### 3.2 Clean Water – Anglian Water

3.2.1 Anglian Water state that there is insufficient capacity to accommodate the proposed development site. Therefore, reinforcement works are required which could take up to 18 months to deliver. The reinforcement works are to comprise:

"Offsite mains reinforcement is required comprising of 2.4km of 180mm HPPE SDR17 from the 225mm MDPE main where it crosses Thurleigh Road Ravensden southeast along Thurleigh Road, Oldways Road, and Renhold Road / Ravensden Road to the 4in AC main at the sites point of connection in Salph End, this assumes that the meter HFRRWM is out of service as shown on GNet, if it is still used then the offsite main must finish at the meter and restart after it. Start grid ref TL0614754768, end grid ref TL0768253071. Assumed complex due to length. Zonal Charge"

- 3.2.2 Anglian Water will require a zonal charge to be paid for each new dwelling at a rate of £458.50 per dwelling or £183,400.00 to cover offsite improvements.
- 3.2.3 Anglian Water have also estimated the cost of providing the onsite water mains to be £28,800.00.
- 3.2.4 A copy of their pre-development enquiry is enclosed in Appendix J.

#### 3.3 Electricity – UK Power Networks

3.3.1 To provide a 2kVA supply to each dwelling and a 150kVA supply to the primary school, UK Power Networks have set out a budget cost of £640,000. A copy of their predevelopment enquiry is enclosed in Appendix K.



#### 3.4 Gas – Cadent

3.4.1 We are still awaiting enquiries on gas supply to be returned. Once they are received this report will be updated.

#### 3.5 Used Water – Anglian Water

- 3.5.1 The development site is in the catchment of Bedford Water Recycling Centre (WRC) which doesn't have capacity to accommodate the proposed development. Anglian Water are obligated to accept flows from this development and upgrade the WRC should the site gain planning permission.
- 3.5.2 Anglian Water have determined that the nearest sewer with capacity to accommodate flows from the development site is located in Wentworth Drive. The proposed connection point by Anglian Water would require a new sewer to be requisitioned across third party land.
- 3.5.3 Other options are available which include an upgrade of the sewer in Hookhams Lane or constructing a new sewer in Hookhams Lane to the outfall point. Other options could be to look at multiple outfall points to reduce the size of sewer required on site thus allowing multiple connections into the existing 150mm diameter sewers which surround the site. The alternative options and most practical and cost-effective solution should be discussed with Anglian Water as design of the site progresses.
- 3.5.4 Anglian Water will require a zonal charge to be paid for each new dwelling at a rate of £471 per dwelling or £188,400.00 to cover offsite improvements.
- 3.5.5 A copy of their pre-development enquiry is enclosed in Appendix J.

#### 3.6 Summary

3.6.1 The result of the pre-development enquires is summarised below in Table 3.1.

**Table 3.1: Pre-development Enquiry Summary** 

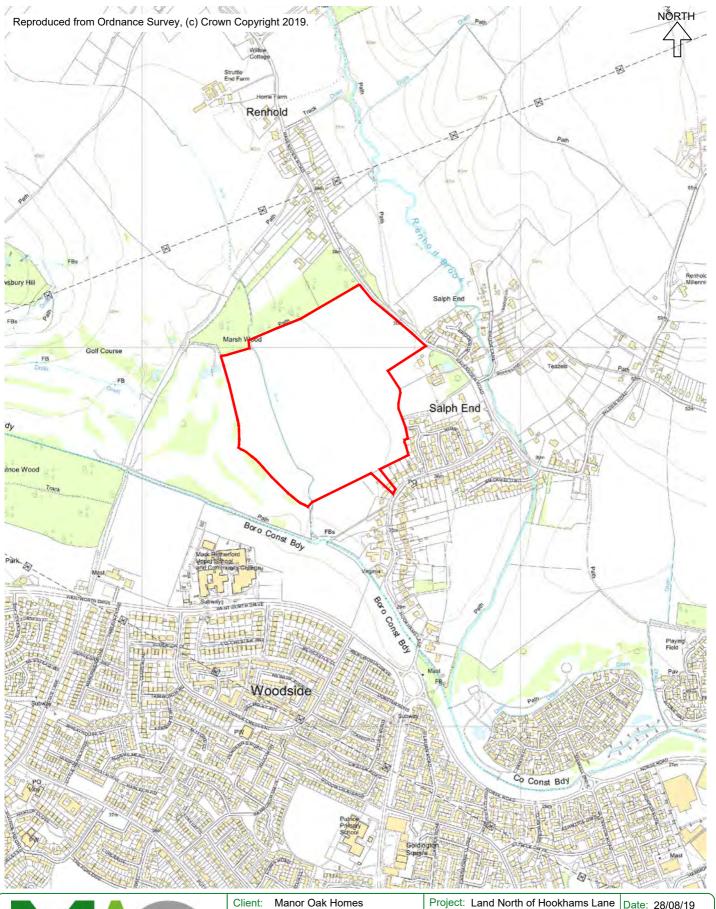
Company	Adequate Capacity?	Costs
Clean Water – Anglian Water	No – offsite improvements	Zonal Charge - £183,400.00
	required.	On site costs - £28,800.00
Electricity – UK Power	Yes	On site costs - £640,000
Networks		
Gas – Cadent	TBC	TBC
Used Water – Anglian Water	No – WRC needs upgrades to	Zonal Charge - £188,400.00
	be provided by AW.	

## Land off Hookhams Lane, Salph End



## Appendix A

Location Plan MAC drawing no. 248-FRA01





Client: Manor Oak Homes

Project: Land North of Hookhams Lane
Salph End

Drw: MJA

Chk: MJA

Scale: 1:10,000

Size: A4

Provision No. 248 EPA04

Provision No. 248 EPA04

Project: Land North of Hookhams Lane
Salph End

Drw: MJA

Fransport Assessments

Flood Risk Assessments

Drawing No. 248-FRA01 Revision A

ision A

Highway Advice

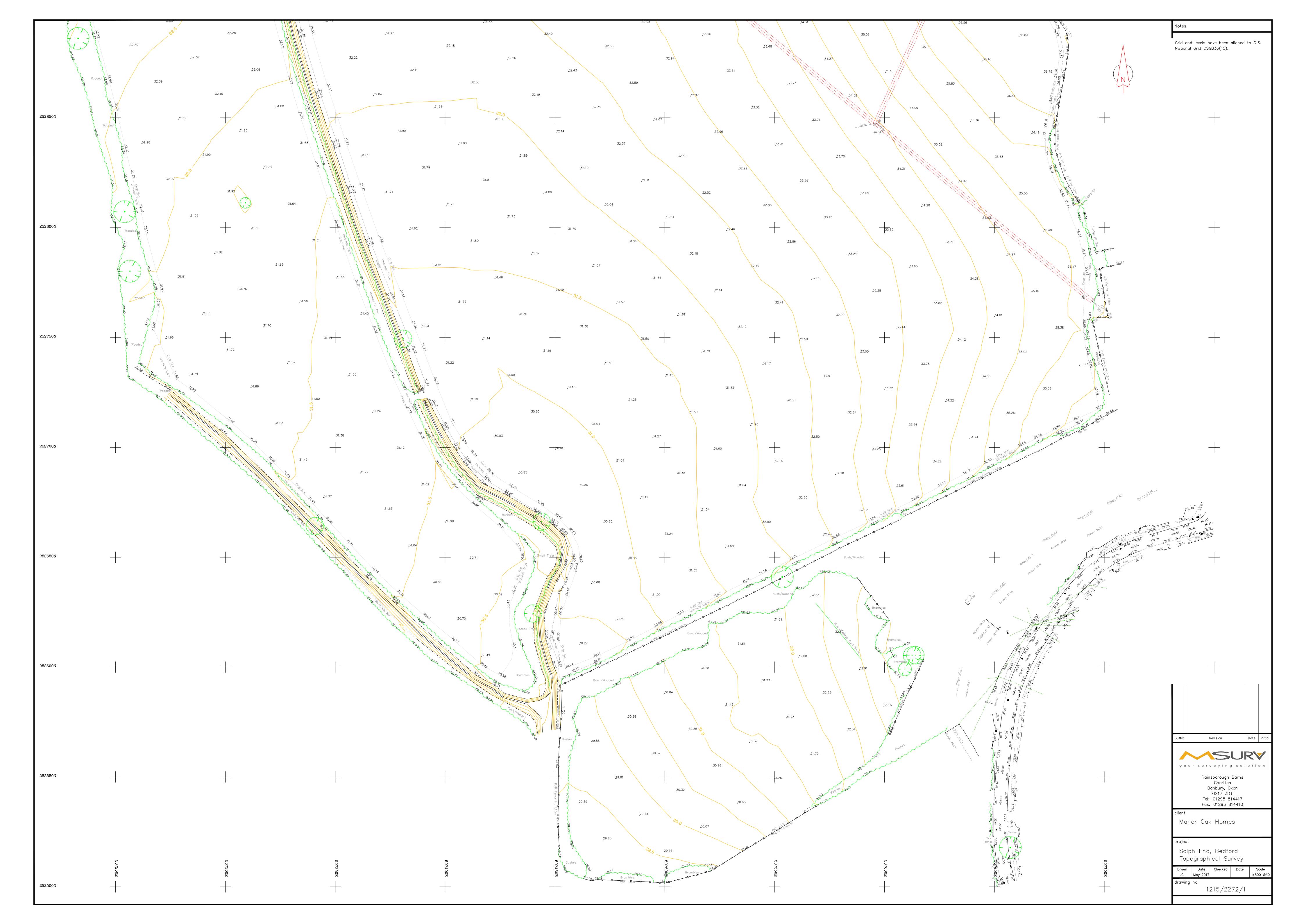
Flood Risk AssessmentsDrainage Strategies

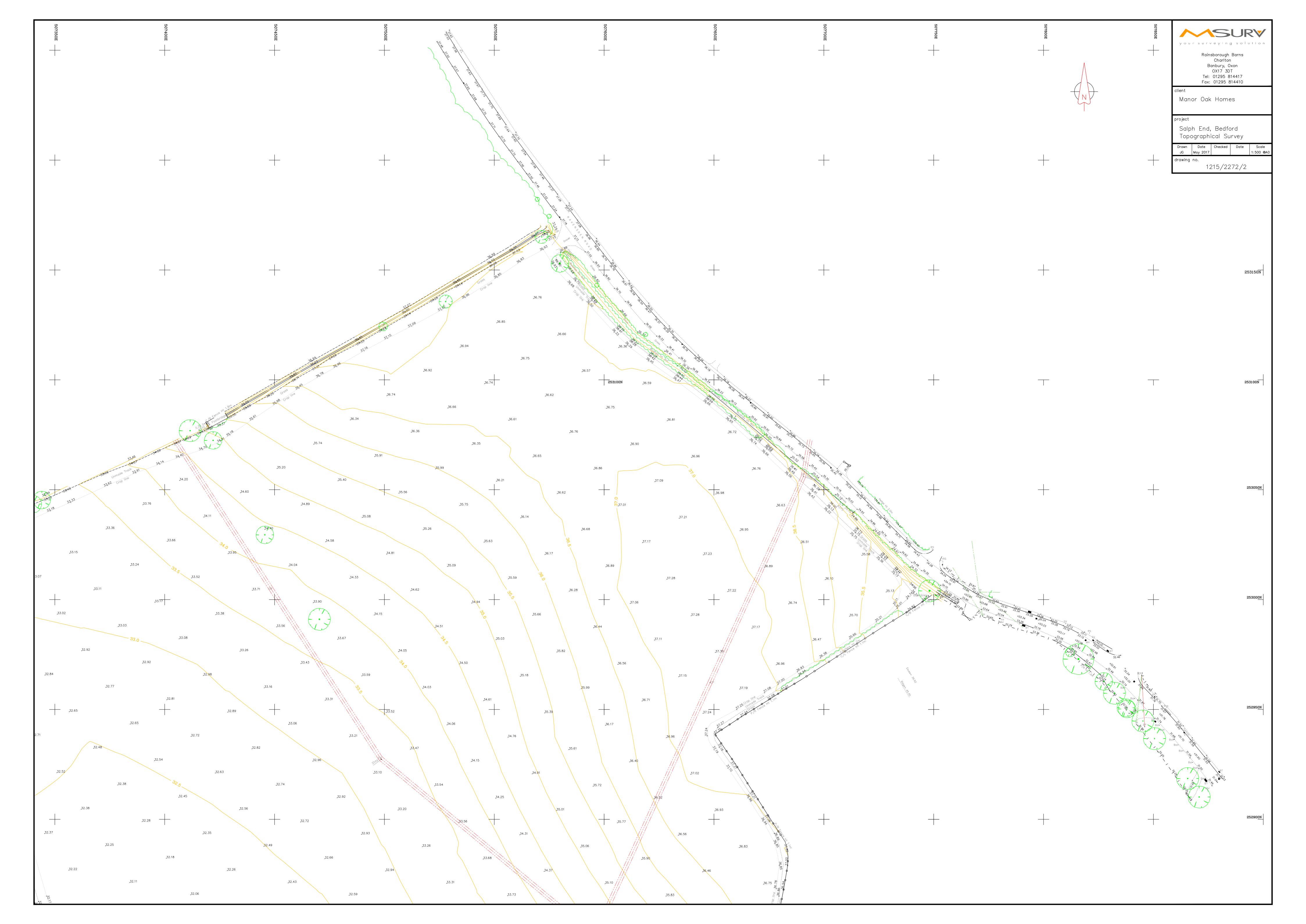
## Land off Hookhams Lane, Salph End

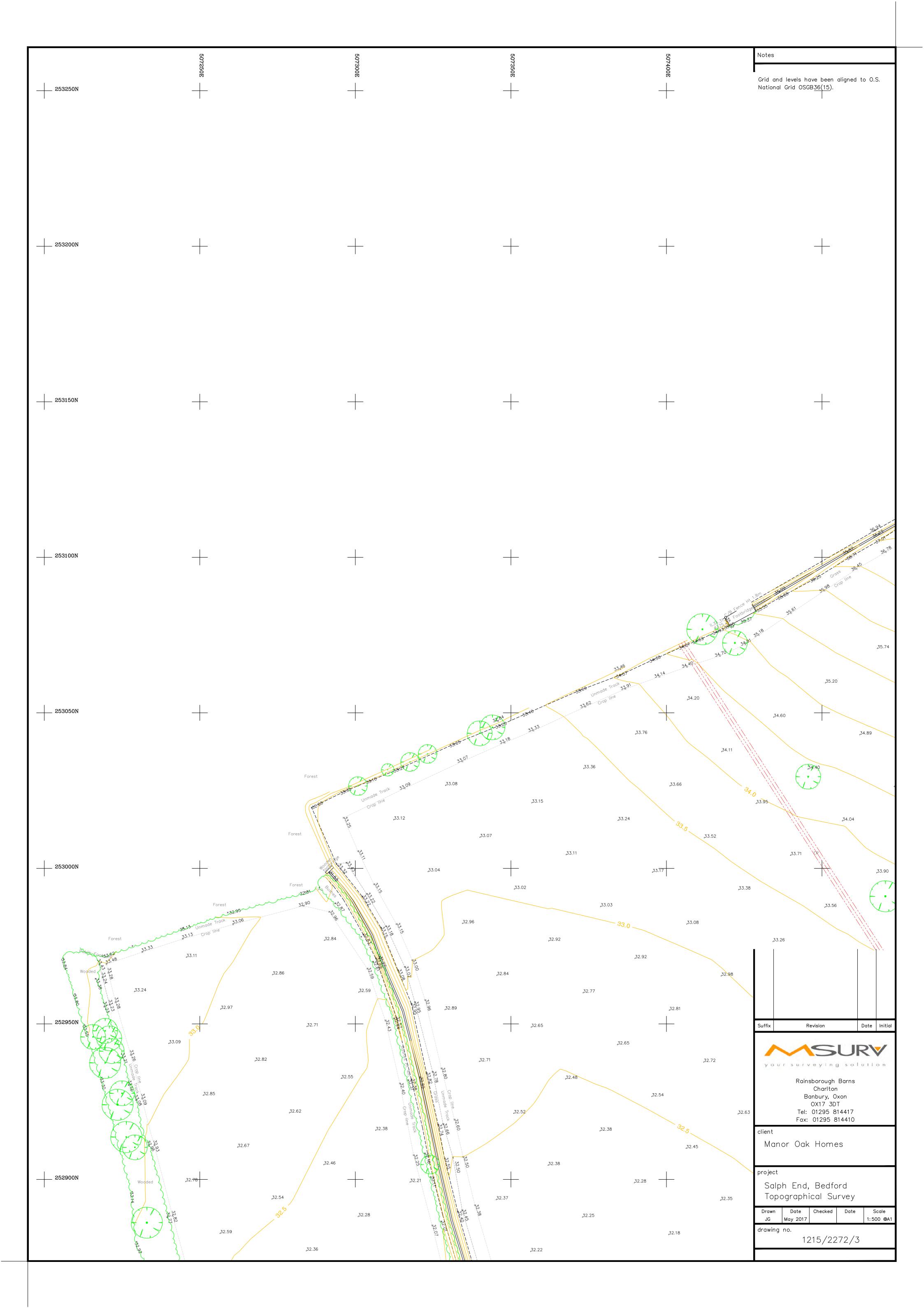


## **Appendix B**

Topographical Survey MSurv drawing no. 1215/2272/1, 2 and 3





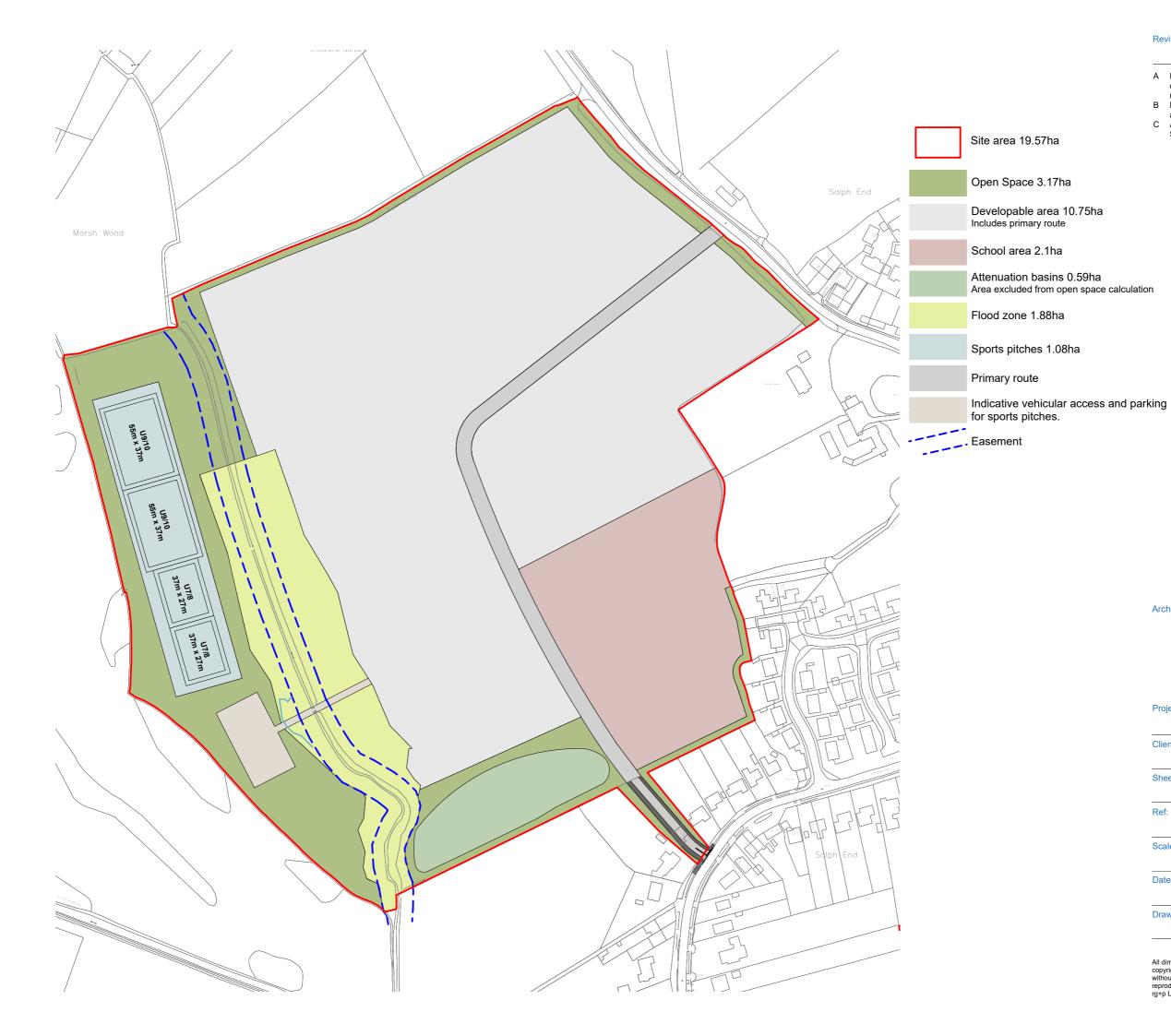


## Land off Hookhams Lane, Salph End



## **Appendix C**

Parameters Plan RG+P drawing no. 40986 013C



Revision:

Date:

A Plan updated with revised 12.08.19 HW/DW distribution of POS and relocation of site access.

B Developable, open space and 20.08.19 HW/DW attenuation areas updated.

C Attenuation basin amended. 22.08.19 HW/DW Site area added to key.



#### Architects · Project Managers · Quantity Surveyors

130 New Walk Leicester, LE1 7JA

Tel: 0116 204 5800, Fax: 0116 204 5801 email: design@rg-p.co.uk, www.rg-p.co.uk

Project:	A development at Salph End, Bedford		
Client:	Manor Oak Homes		
Sheet title:	Parameters Plan		
Ref:	40986 013C		
Scale:	1:2500 @ A3		
Date:	25.07.19		
Drawn:	HW	Checked:	DW

All dimensions to be checked on site. This drawing is the copyright of the Architect, and not to be reproduced without their permission. Ordnance Survey map information reproduced with permission of HMSO Crown Copyright reserved. rg+p Ltd. Trading as rg+p

## Land off Hookhams Lane, Salph End



# **Appendix D**Linesearch Results

D



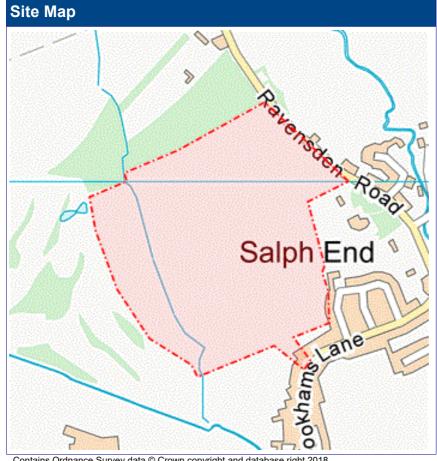
## **Enquiry Confirmation** LSBUD Ref: 16383975

Date of enquiry: 03/09/2019 Time of enquiry: 15:05

Enquirer			
Name	Mr Martin Andrews	Phone	01604 340544
Company	Martin Andrews Consulting Ltd	Mobile	07719 319973
Address	8 Corn Kiln CLose		
	Cogenhoe Northamptonshire NN7 1 NX		
Email	martin.andrews@mac-ltd.co.uk		

<b>Enquiry Details</b>						
Scheme/Reference	248 Salph End					
Enquiry type	Planned Works	Works Work categ		Work category Development Proje		
Start date	13/03/2020	Work type		Housing		
End date	12/03/2021	Site size	Site size		195385 metres square	
Searched location	XY= 507519, 252820	Work type buffer*		25 metres		
Confirmed location	507465 252862	,		ı		
Site Contact Name	Not Supplied	İ		one No	Not Supplied	
Description of Works	Not Supplied			I		

<sup>\*</sup> The WORK TYPE BUFFER is a distance added to your search area based on the Work type you have chosen.





# Enquiry Confirmation LSBUD Ref: 16383975

Date of enquiry: 03/09/2019
Time of enquiry: 15:05

#### **Asset Owners**

**Terms and Conditions.** Please note that this enquiry is subject always to our standard terms and conditions available at www.linesearchbeforeudig.co.uk ("Terms of Use") and the disclaimer at the end of this document. Please note that in the event of any conflict or ambiguity between the terms of this Enquiry Confirmation and the Terms of Use, the Terms of Use shall take precedence.

Notes. Please ensure your contact details are correct and up to date on the system in case the LSBUD Members need to contact you.

Validity and search criteria. The results of this enquiry are based on the confirmed information you entered and are valid only as at the date of the enquiry. It is your responsibility to ensure that the Enquiry Details are correct, and LinesearchbeforeUdig accepts no responsibility for any errors or omissions in the Enquiry Details or any consequences thereof. LSBUD Members update their asset information on a regular basis so you are advised to consider this when undertaking any works. It is your responsibility to choose the period of time after which you need to resubmit any enquiry but the maximum time (after which your enquiry will no longer be dealt with by the LSBUD Helpdesk and LSBUD Members) is 28 days. If any details of the enquiry change, particularly including, but not limited to, the location of the work, then a further enquiry must be made.

Asset Owners & Responses. Please note the enquiry results include the following:

- 1. "LSBUD Members" who are asset owners who have registered their assets on the LSBUD service.
- 2. "Non LSBUD Members" are asset owners who have not registered their assets on the LSBUD service but LSBUD is aware of their existence. Please note that there could be other asset owners within your search area.

Below are three lists of asset owners:

- 1. LSBUD Members who have assets registered within your search area. ("Affected")
  - a. These LSBUD Members will either:
    - i. Ask for further information ("Email Additional Info" noted in status). The additional information includes: Site contact name and number, Location plan, Detailed plan (minimum scale 1:2500), Cross sectional drawings (if available), Work Specification.
    - ii. Respond directly to you ("Await Response"). In this response they may either send plans directly to you or ask for further information before being able to do so, particularly if any payments or authorisations are required.
- 2. LSBUD Members who do not have assets registered within your search area. ("Not Affected")
- 3. Non LSBUD Members who may have assets within your search area. Please note that this list is not exhaustive and all details are provided as a guide only. It is your responsibility to identify and consult with all asset owners before proceeding.

**National Grid.** Please note that the LSBUD service only contains information on National Grid's Gas above 7 bar asset, all National Grid Electricity Transmission assets and National Grid's Gas Distribution Limited above 2 bar asset.

For National Grid Gas Distribution Ltd below 2 bar asset information please go to www.beforeyoudig.nationalgrid.com



# **Enquiry Confirmation LSBUD Ref: 16383975**

Date of enquiry: 03/09/2019 Time of enquiry: 15:05

LSBUD Members who have assets registered on the LSBUD service within the vicinity of your search area.

List of affected LSBUD members			
Asset Owner Phone/Email Emergency Only Status			
Tata Communications	01992655919	+17322824001	Await response
UK Power Networks	08000565866	08000565866	Await response

LSBUD Members who do not have assets registered on the LSBUD service within the vicinity of your search area. Please be aware that LSBUD Members make regular changes to their assets and this list may vary for new enquiries in the same area.

	List of not affected LSBUD members	
AWE Pipeline	Balfour Beatty Investments Limited	BOC Limited (A Member of the Linde Group)
BP Exploration Operating Company Limited	BPA	Carrington Gas Pipeline
CATS Pipeline c/o Wood Group PSN	Cemex	Centrica Storage Ltd
CLH Pipeline System Ltd	CNG Services Ltd	Concept Solutions People Ltd
ConocoPhillips (UK) Ltd	DIO (MOD Abandoned Pipelines)	Drax Group
E.ON UK CHP Limited	EirGrid	Electricity North West Limited
ENI & Himor c/o Penspen Ltd	EnQuest NNS Limited	EP Langage Limited
ESP Utilities Group	ESSAR	Esso Petroleum Company Limited
Fulcrum Pipelines Limited	Gamma	Gateshead Energy Company
Gigaclear Ltd	Gtt	Hafren Dyfrdwy
Heathrow Airport LTD	Humbly Grove Energy	lGas Energy
INEOS FPS Pipelines	INEOS Manufacturing (Scotland and TSEP)	INOVYN Enterprises Limited
Intergen (Coryton Energy or Spalding Energy)	Mainline Pipelines Limited	Manchester Jetline Limited
Manx Cable Company	Marchwood Power Ltd (Gas Pipeline)	Melbourn Solar Limited
Murphy Utility Assets	National Grid Gas (Above 7 bar), National Grid Gas Distribution Limited (Above 2 bar) and National Grid Electricity Transmission	Northumbrian Water Group
NPower CHP Pipelines	Oikos Storage Limited	Ørsted
Perenco UK Limited (Purbeck Southampton Pipeline)	Perenco UK Limited (Purbeck Southampton Pipeline)	Petroineos
Phillips 66	Premier Transmission Ltd (SNIP)	Prysmian Cables & Systems Ltd (c/o Western Link)
Redundant Pipelines - LPDA	RWE - Great Yarmouth Pipeline (Bacton to Great Yarmouth Power Station)	RWEnpower (Little Barford and South Haven)
SABIC UK Petrochemicals	Scottish Power Generation	Seabank Power Ltd
Severn Trent (Chester area only)	SGN	Shell (St Fergus to Mossmorran)
Shell Pipelines	SSE (Peterhead Power Station)	Total (Colnbrook & Colwick Pipelines)
Total Finaline Pipelines	Transmission Capital	Uniper UK Ltd
Vattenfall	Veolia ES SELCHP Limited	Wales and West Utilities
Western Power Distribution	Westminster City Council	Zayo Group UK Ltd c/o JSM Group Ltd



### Enquiry Confirmation LSBUD Ref: 16383975

Date of enquiry: 03/09/2019
Time of enquiry: 15:05

The following Non-LSBUD Members may have assets in your search area. It is YOUR RESPONSIBILITY to contact them before proceeding. Please be aware this list is not exhaustive and it is your responsibility to identify and contact all asset owners within your search area.

Non-LSBUD members (Asset owners not registered on LSBUD)				
Asset Owner	Preferred contact method	Phone	Status	
Anglian Water	http://www.digdat.co.uk	01480323891	Not Notified	
ВТ	https://www.swns.bt.com/pls/mbe/welcome.home	08009173993	Not Notified	
Cadent Gas	plantprotection@cadentgas.com	0800688588	Not Notified	
CenturyLink Communications UK Limited	plantenquiries@instalcom.co.uk	02087314613	Not Notified	
CityFibre	asset.team@cityfibre.com	033 3150 7282	Not Notified	
Colt	plantenquiries@catelecomuk.com	01227768427	Not Notified	
Energetics Electricity	plantenquiries@energetics-uk.com	01698404646	Not Notified	
ENGIE	nrswa@cofely-gdfsuez.com	01293 549944	Not Notified	
GTC	https://pe.gtc-uk.co.uk/PlantEnqMembership	01359240363	Not Notified	
KPN (c/-Instalcom)	kpn.plantenquiries@instalcom.co.uk	n/a	Not Notified	
Mobile Broadband Network Limited	mbnl.plant.enquiries@turntown.com	01212 621 100	Not Notified	
Sota	SOTA.plantenquiries@instalcom.co.uk		Not Notified	
Utility assets Ltd	assetrecords@utilityassets.co.uk		Not Notified	
Verizon Business	osp-team@uk.verizonbusiness.com	01293611736	Not Notified	
Virgin Media	http://www.digdat.co.uk	08708883116	Not Notified	
Vodafone	osm.enquiries@atkinsglobal.com	01454662881	Not Notified	

#### Disclaimer

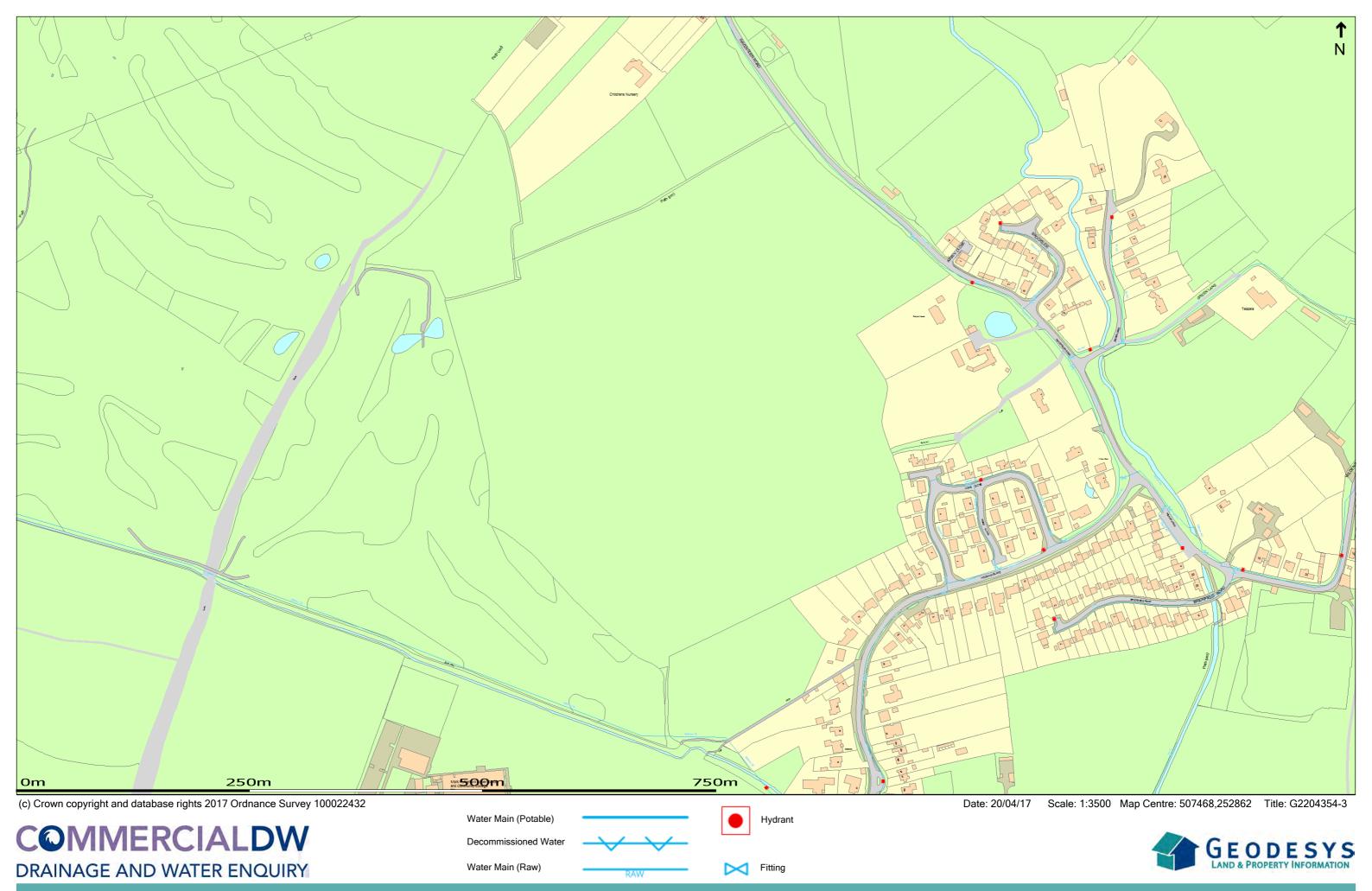
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The results of this Enquiry are personal to the Enquirer and shall not be shared with or relied upon by any other party. The asset information on which the Enquiry results are based has been provided by LSBUD Members, therefore LinesearchbeforeUdig will provide no guarantee that such information is accurate or reliable nor does it monitor such asset information for accuracy and reliability going forward. There may also be asset owners which do not participate in the enquiry service operated by LinesearchbeforeUdig, including but not exclusively those set out above. Therefore, LinesearchbeforeUdig cannot make any representation or give any guarantee or warranty as to the completeness of the information contained in the enquiry results or accept any responsibility for the accuracy of the mapping images used. LinesearchbeforeUdig and its employees, agents and consultants accept no liability (save that nothing in this Enquiry Confirmation excludes or limits our liability for death or personal injury arising from our negligence, or our fraud or fraudulent misrepresentation, or any other liability that cannot be excluded or limited by English law) arising in respect thereof or in any other way for errors or omissions including responsibility to any person by reason of negligence.

## Land off Hookhams Lane, Salph End



# **Appendix E**Clean Water Asset Plans

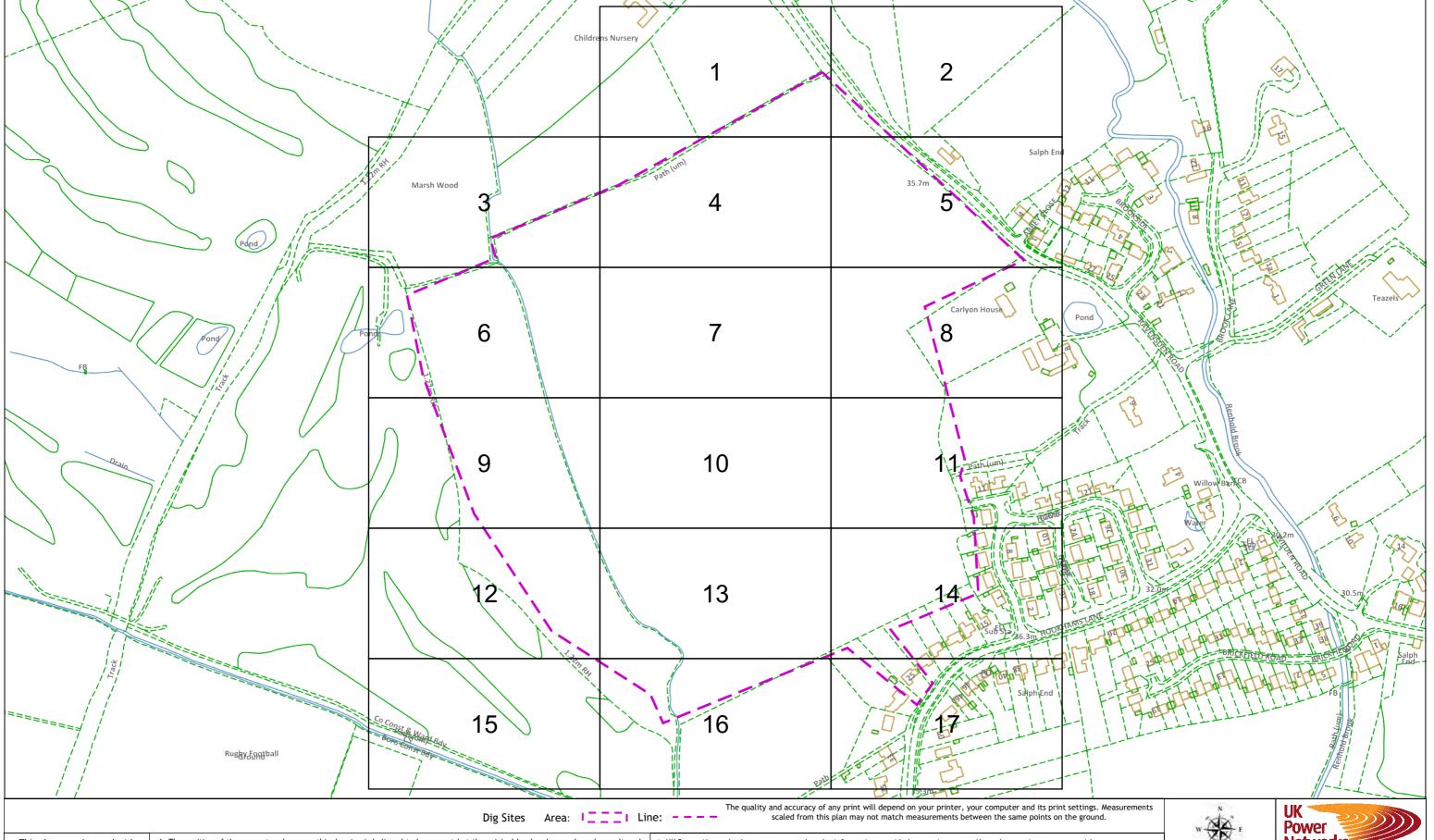


This plan is provided by Anglian Water pursuant its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This plan is produced by Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.

## Land off Hookhams Lane, Salph End



# **Appendix F** Electricity Asset Plans



This plan must be used with the attached 'Symbols' document.

Date Requested: 03/09/2019 Job Reference: 16383975 Site Location: 506920 252458 Requested by:

Mr Martin Andrews

Your Scheme/Reference: 248 Salph

Scale: 1:3075 (When plotted at A3)

- 1. The position of the apparatus shown on this drawing is believed to be correct but the original landmarks may have been altered since the apparatus was installed.
- 2. The exact position of the apparatus should be verified use approved cable avoidance tools prior to excavation using suitable hand 3. It is essential that trial holes are carefully made avoiding the use of mechanical tools or picks until the exact location of all the
- cables have been determined.
- 4. It must be assumed that there is a service cable into each property, lamp column and street sign, etc. 5. All cables must be treated as being live unless proved otherwise by UK Power Networks.
- 6. The information proved must be given to all people working near UK Power Networks plant and equipment. Do not use plans more than 3 months after the issue date for excavation purposes.

  7. Please be aware that electric cables/lines belonging to other owners of licensed electricity distribution systems may be present and
- it is your responsibility to identify their location.
- 1. UK Power Networks does not warrant that the information provided to you is correct. You rely upon it at your own risk.

  2. UK Power Networks does not exclude or limit its liability if it causes the death of any persons or causes personal injury to a person.
- 3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise for any loss, damage, cost, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever. 4. This plan has been provided to you on the basis of the terms of use set out in the covering letter that accompanies this plan. If you do

not accept and/or do not understand the terms of use set out in the covering letter you must not use the plan and must return it to the sender of the letter.

5. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.



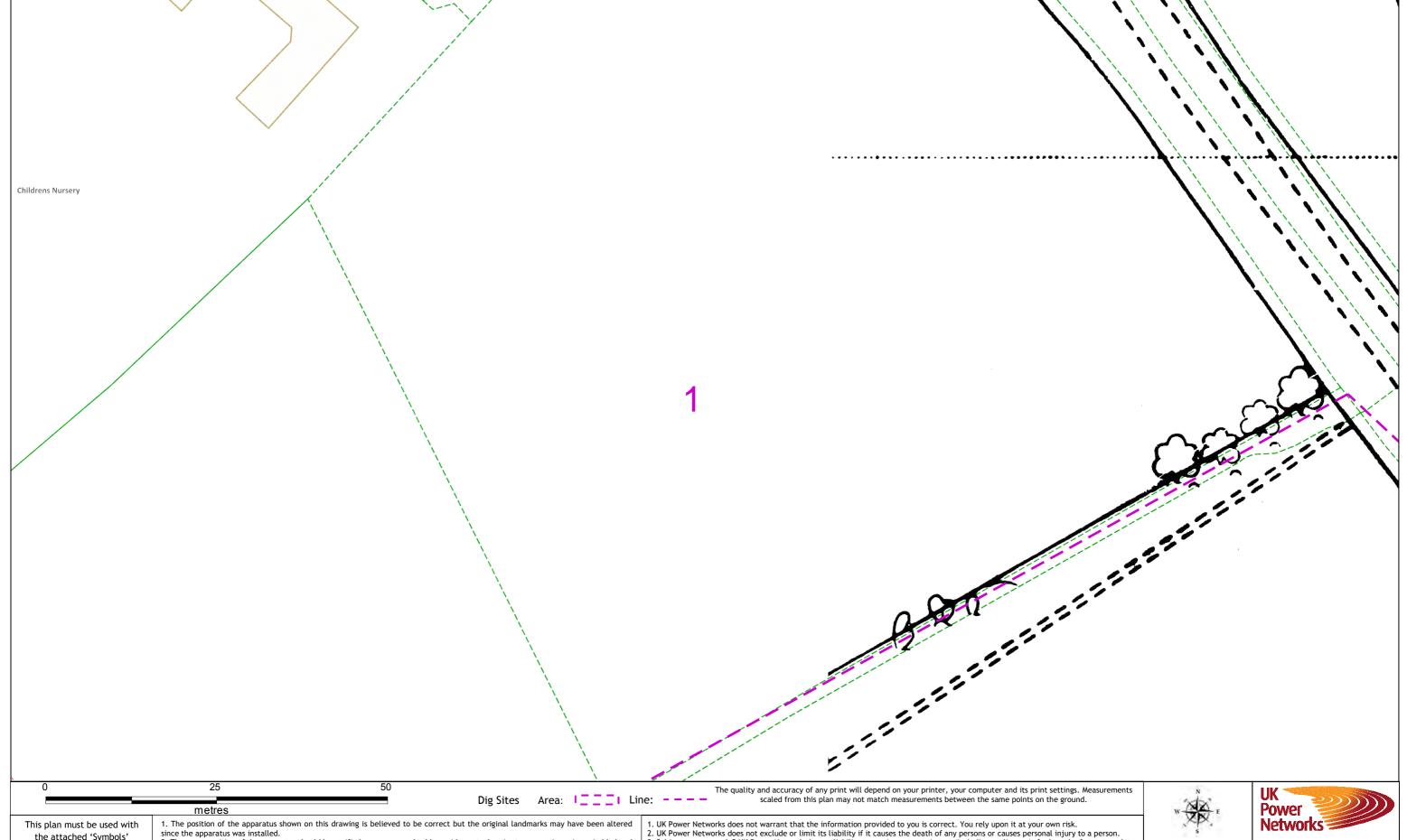


IF IN DOUBT - ASK! PHONE 0800 056 5866 EMERGENCY - If you damage a cable or line Phone 0800 783 8838 (24hrs) URGENTLY



ALWAYS LOOK UP BEFORE YOU START WORK Refer to HSE Guidance note GS6

Maps produced at 1:2500 scale are Geo-Schematics which show LV mains cables and overhead lines (in some cases all voltages). Prior to carrying out excavations you must refer to the 1:500 records to determine the location of all known underground plant and equipment.



the attached 'Symbols' document.

Date Requested: 03/09/2019 Job Reference: 16383975 Site Location: 506920 252458 Requested by:

Mr Martin Andrews

Your Scheme/Reference: 248 Salph Scale: 1:500 (When plotted at A3)

2. The exact position of the apparatus should be verified - use approved cable avoidance tools prior to excavation using suitable hand

3. It is essential that trial holes are carefully made avoiding the use of mechanical tools or picks until the exact location of all the cables have been determined.

4. It must be assumed that there is a service cable into each property, lamp column and street sign, etc. 5. All cables must be treated as being live unless proved otherwise by UK Power Networks.

6. The information proved must be given to all people working near UK Power Networks plant and equipment. Do not use plans more than 3 months after the issue date for excavation purposes.

7. Please be aware that electric cables/lines belonging to other owners of licensed electricity distribution systems may be present and it is your responsibility to identify their location.

3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise for any loss, damage, cost, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss

of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever. 4. This plan has been provided to you on the basis of the terms of use set out in the covering letter that accompanies this plan. If you do not accept and/or do not understand the terms of use set out in the covering letter you must not use the plan and must return it to the sender of the letter.

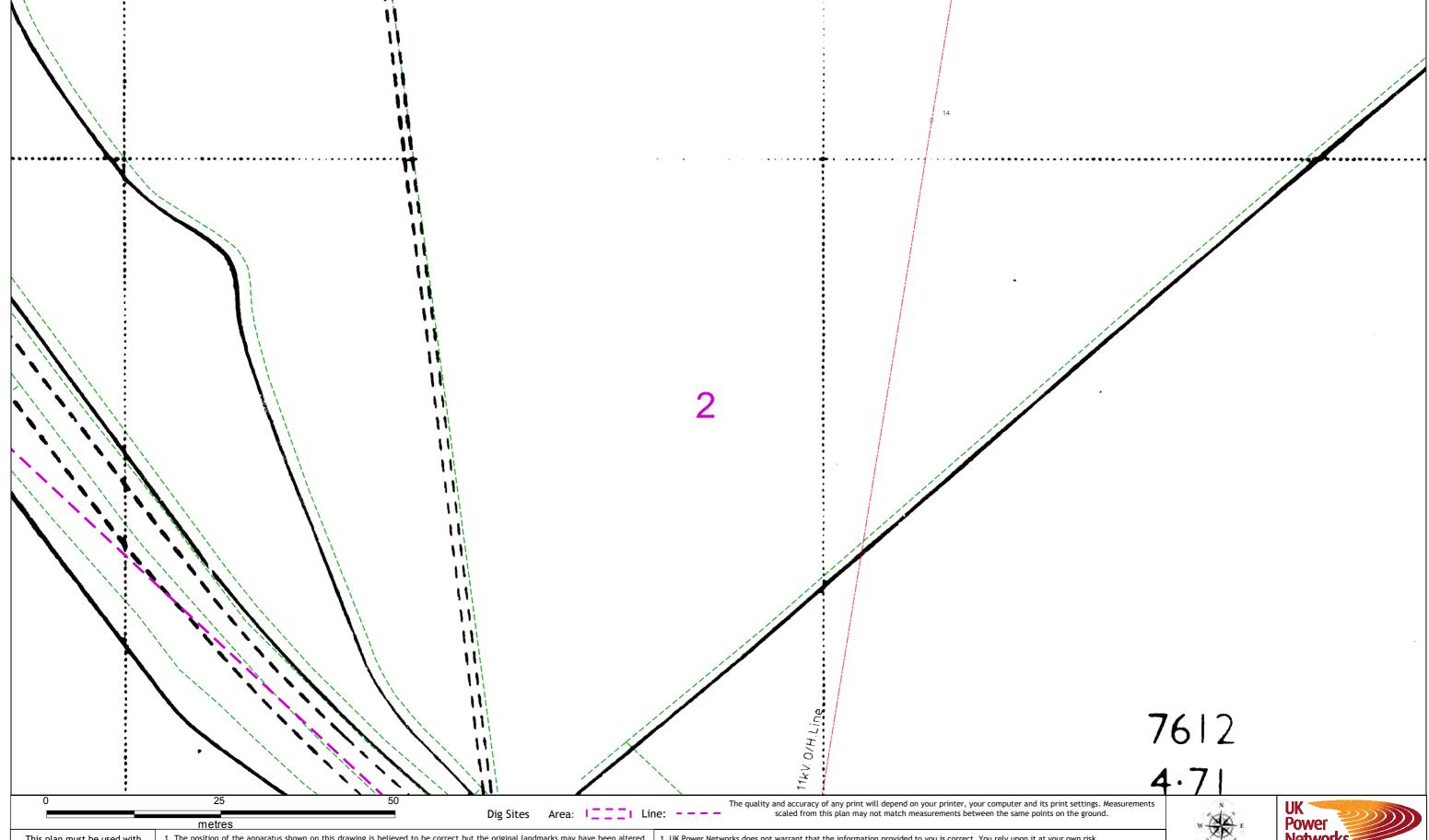
5. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.

IF IN DOLIBT - ASK! PHONE 0800 056 5866 EMERGENCY - If you damage a cable or line Phone 0800 783 8838 (24hrs) URGENTLY



ALWAYS LOOK UP YOU START WORK Refer to HSE Guidance note GS6

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Date Requested: 03/09/2019 Job Reference: 16383975 Site Location: 506920 252458 Requested by:

Mr Martin Andrews Your Scheme/Reference: 248 Salph

Scale: 1:500 (When plotted at A3)

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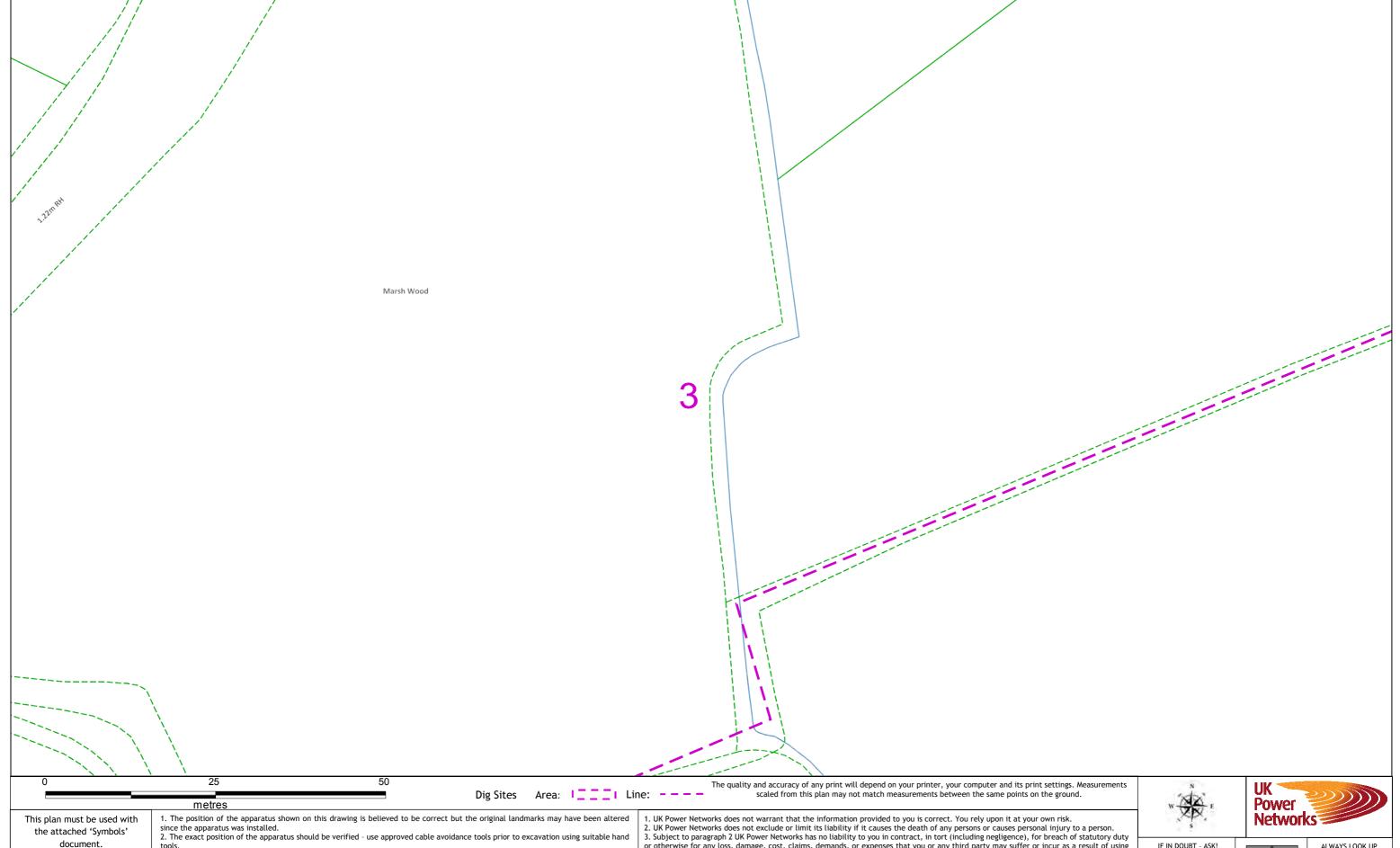


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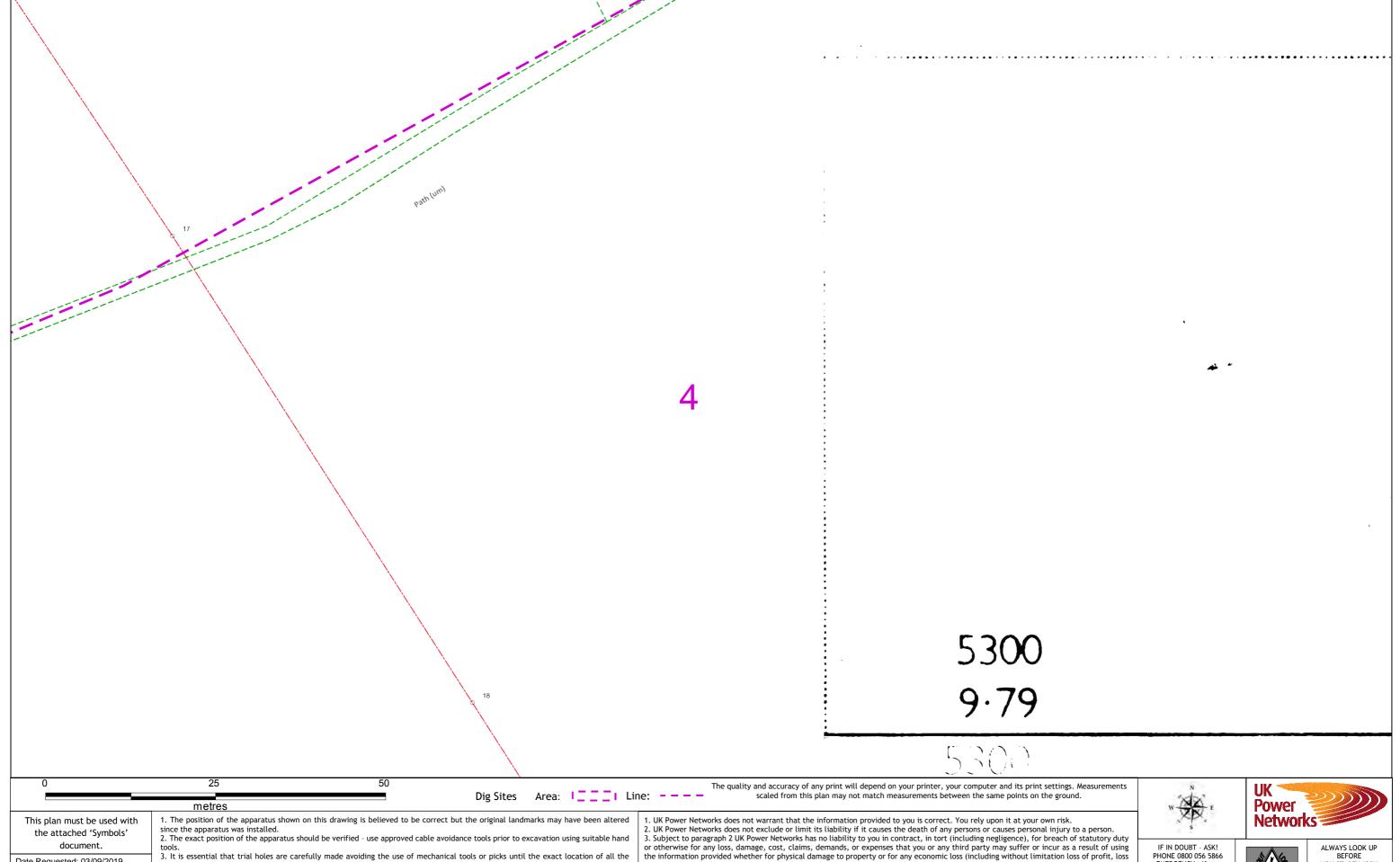
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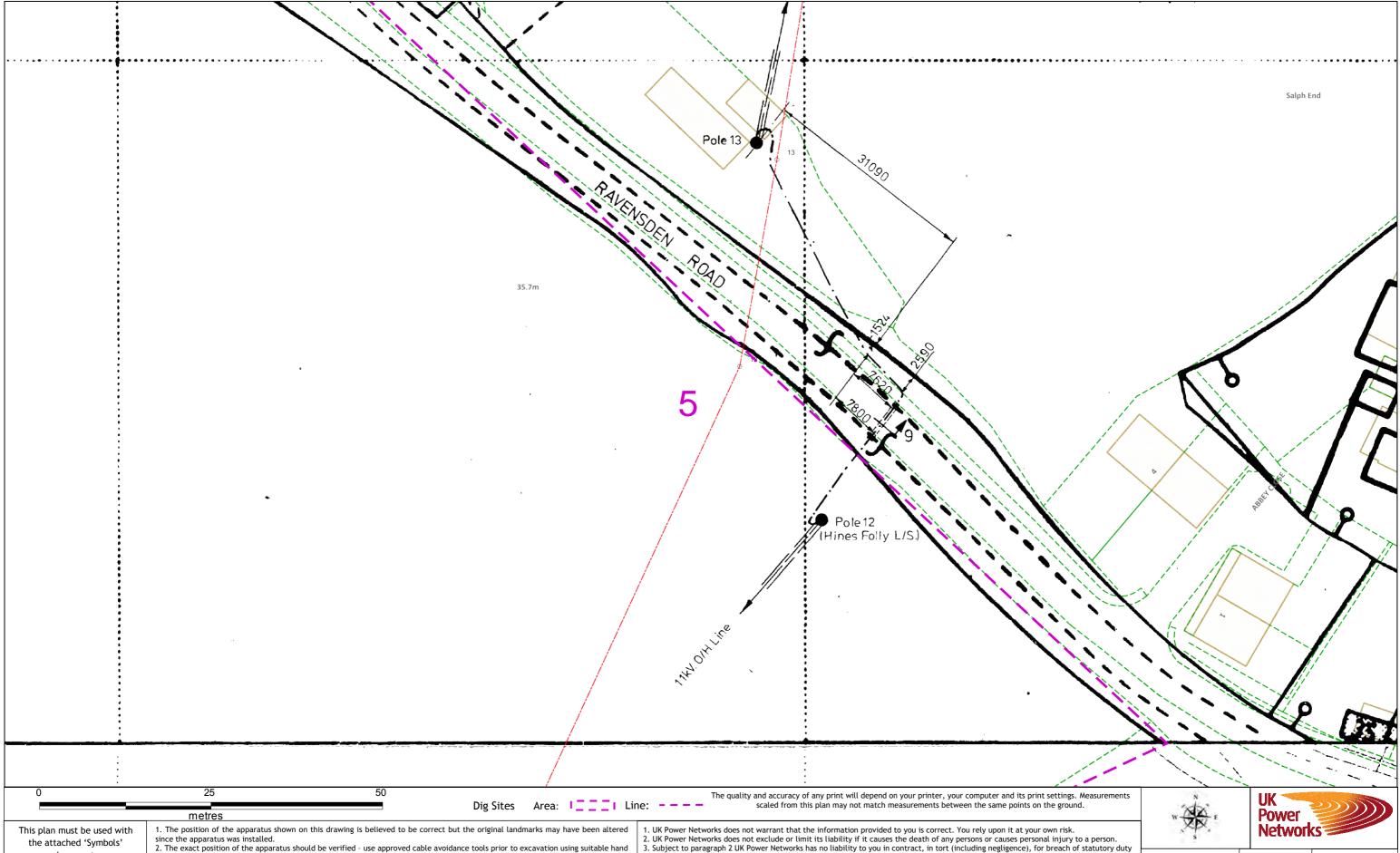
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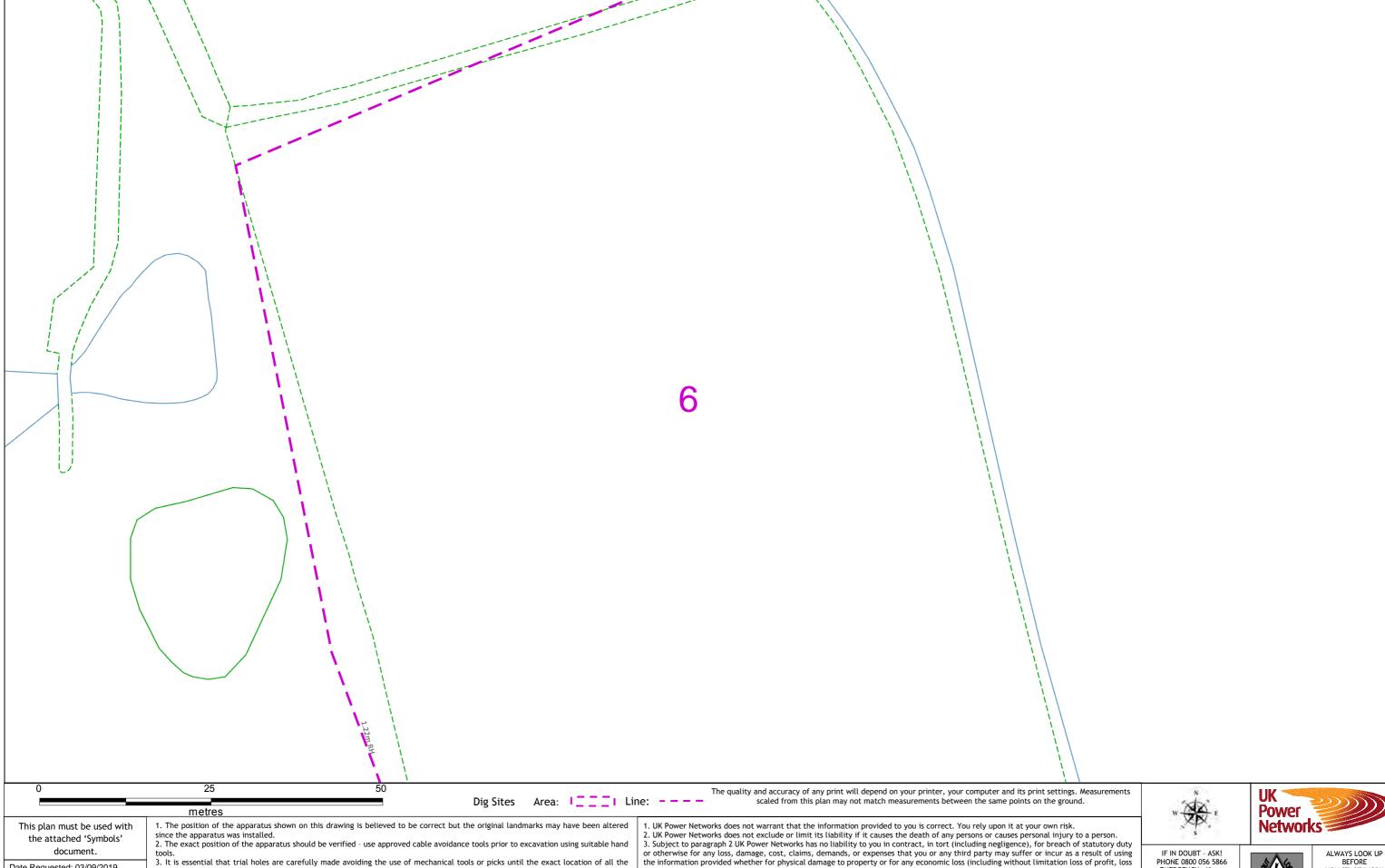
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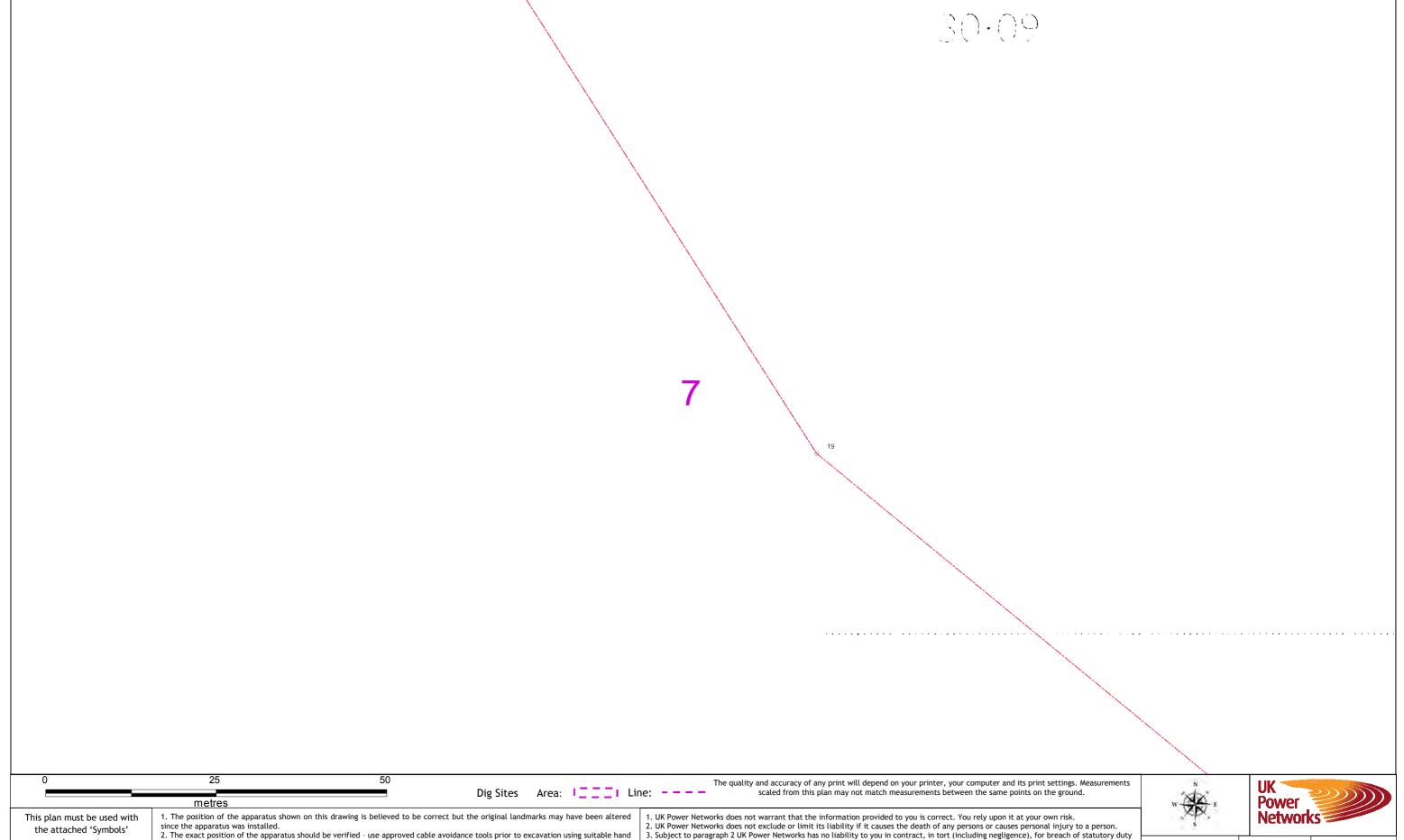


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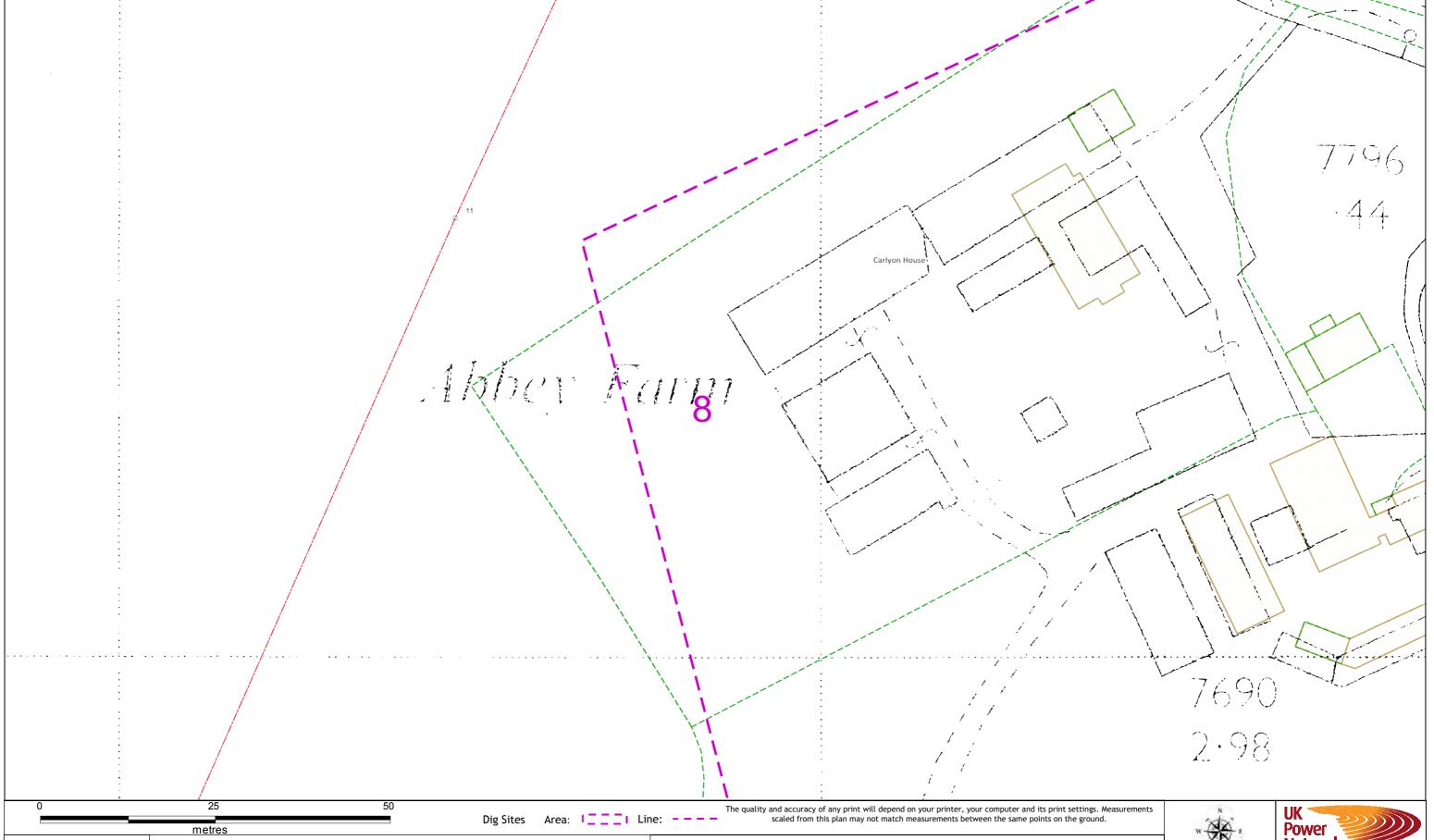
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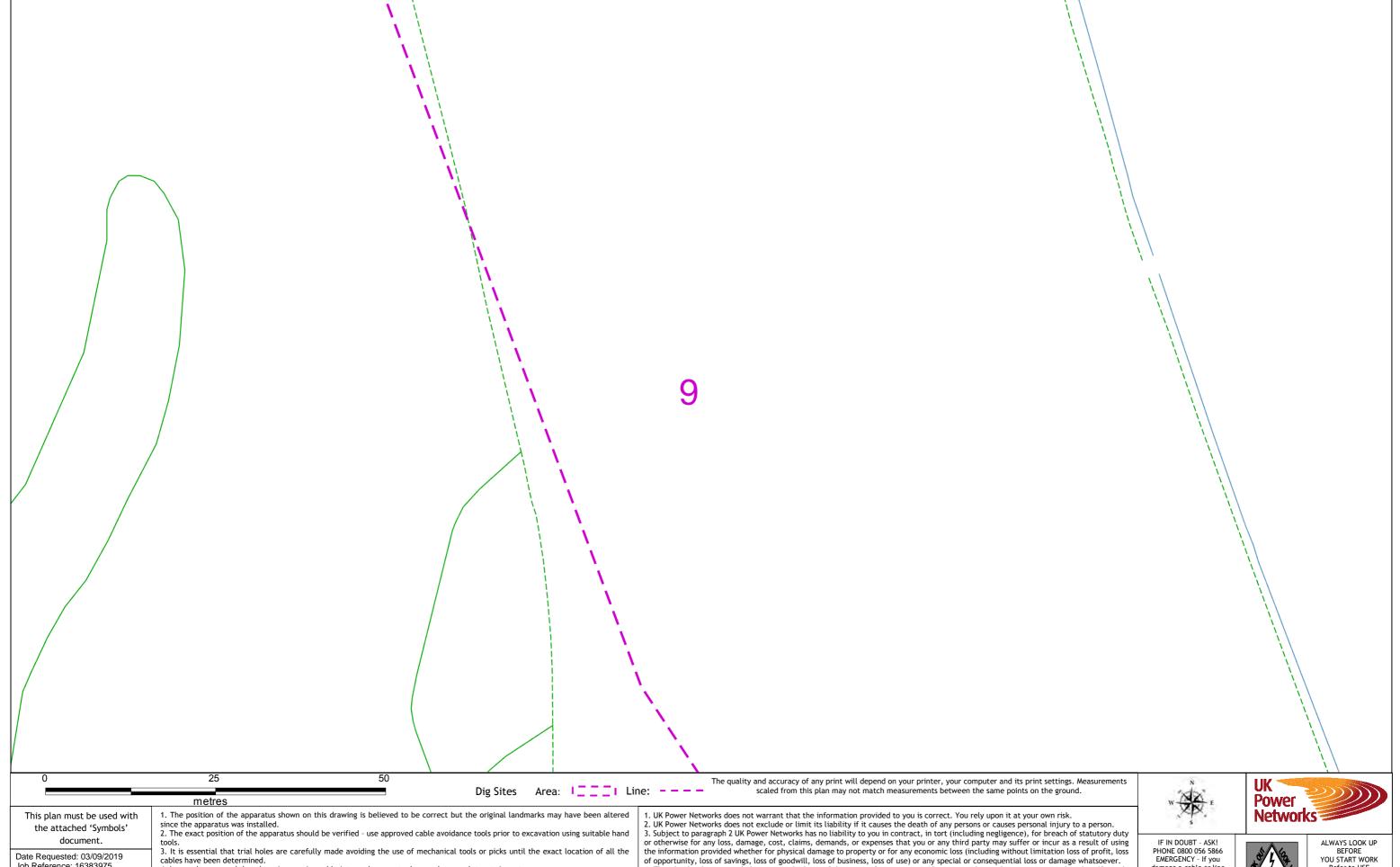


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Date Requested: 03/09/2019

Requested by:

Mr Martin Ándrews

Job Reference: 16383975 Site Location: 506920 252458

Dig Sites Area: | \_ \_ \_ | Line: - - - -

The quality and accuracy of any print will depend on your printer, your computer and its print settings. Measurements scaled from this plan may not match measurements between the same points on the ground.

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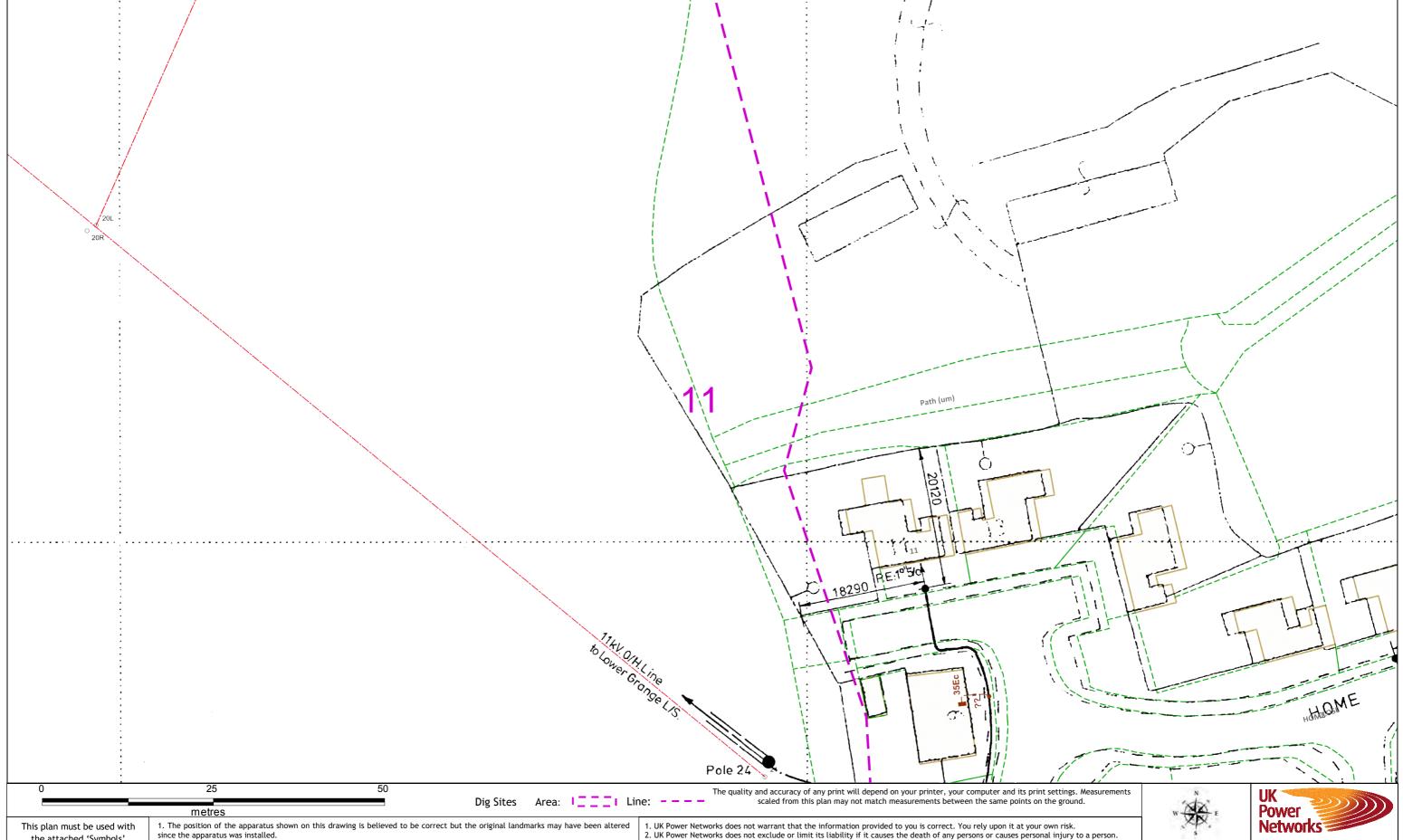


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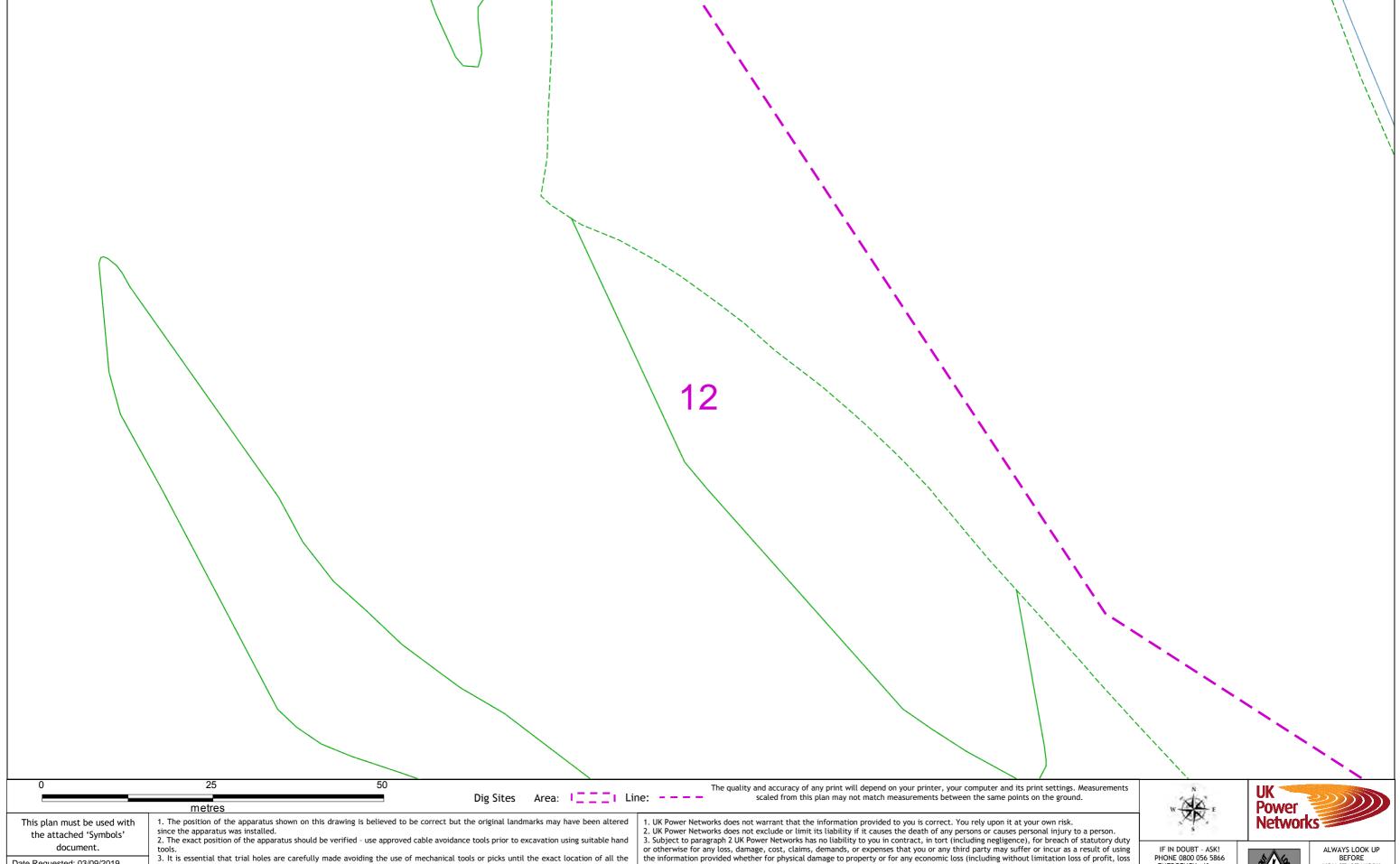


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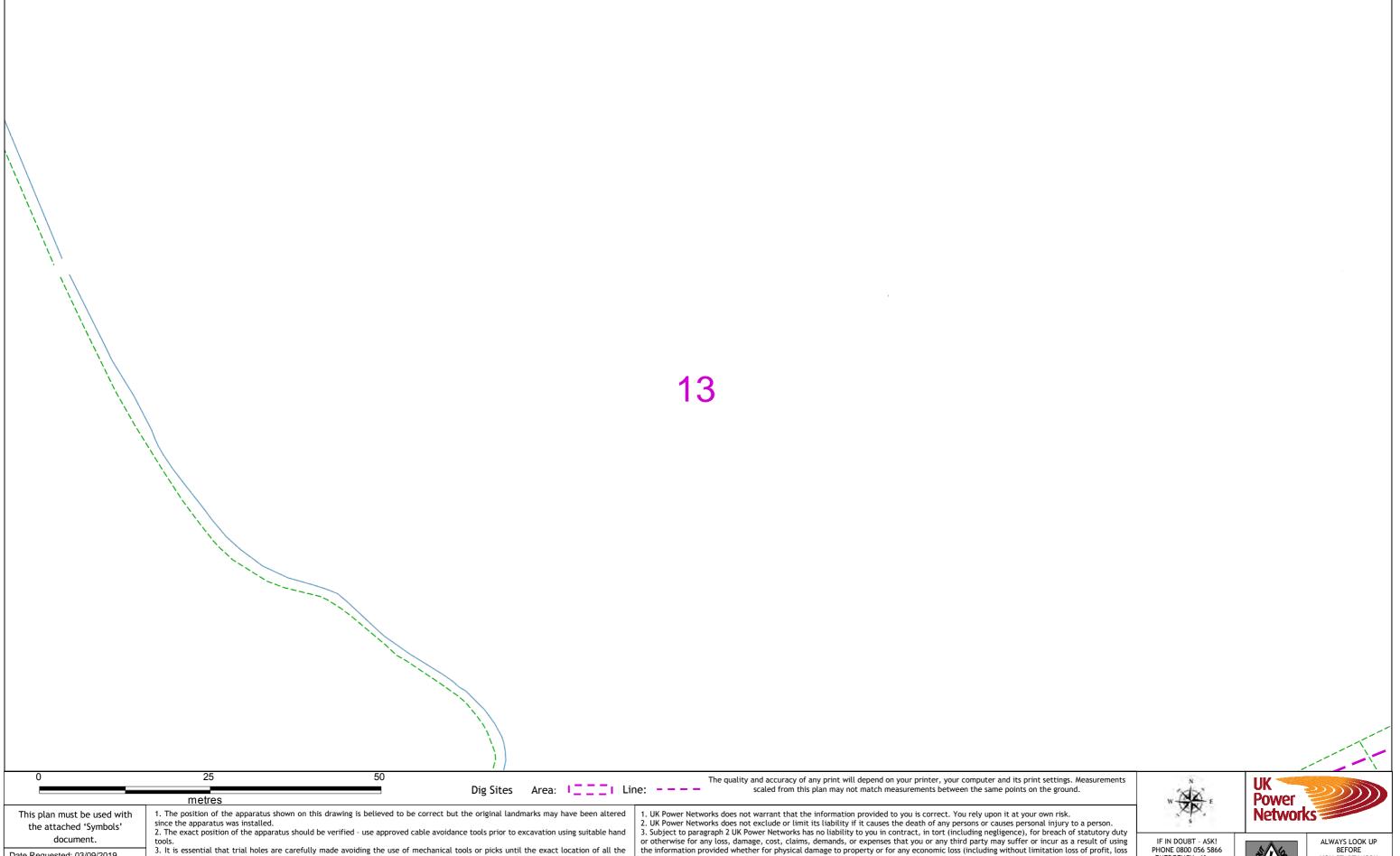
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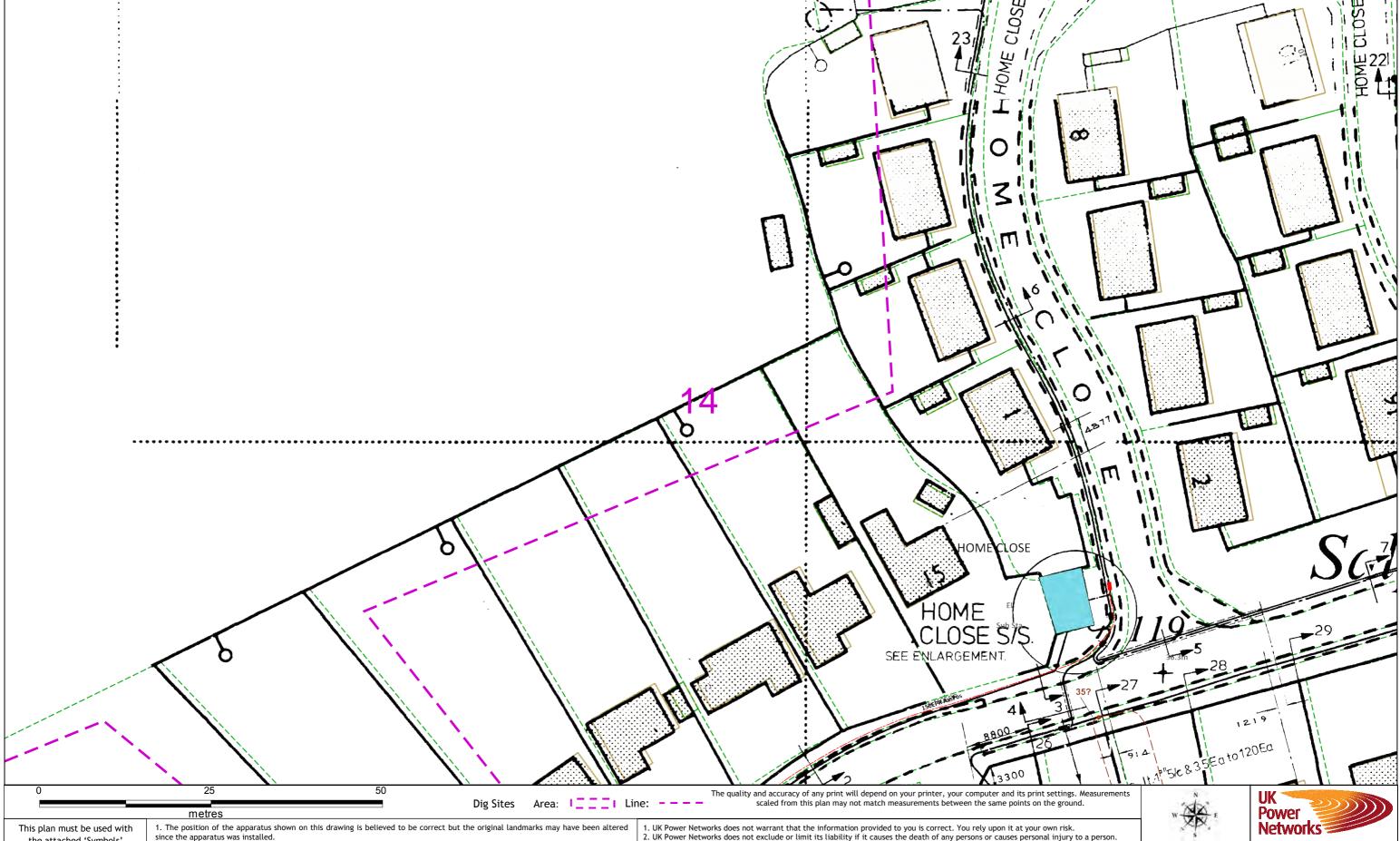
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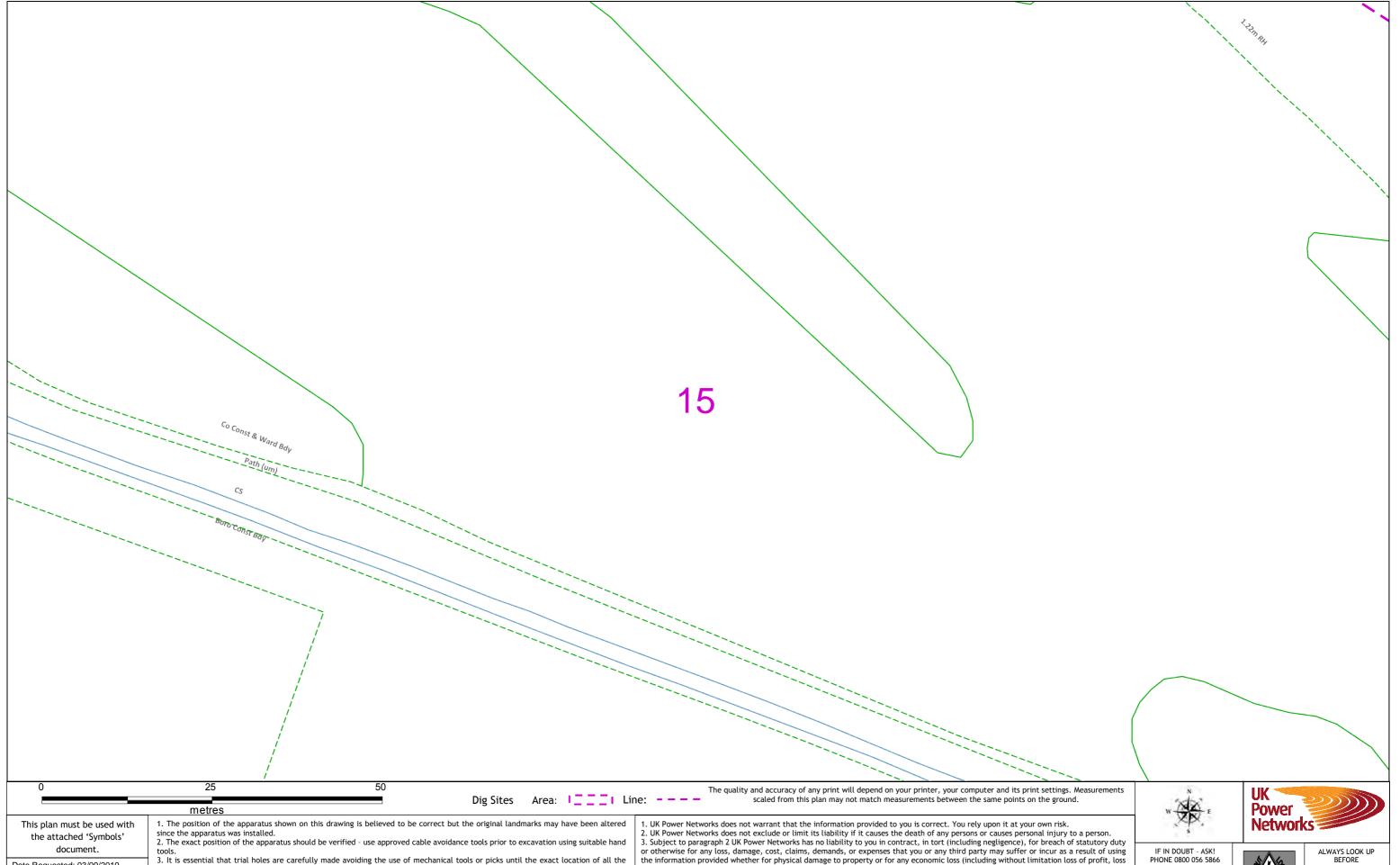
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ALWAYS LOOK UP YOU START WORK Refer to HSE Guidance note GS6

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Date Requested: 03/09/2019 Job Reference: 16383975 Site Location: 506920 252458 Requested by:

Mr Martin Ándrews

Your Scheme/Reference: 248 Salph

Scale: 1:500 (When plotted at A3)

cables have been determined.

It must be assumed that there is a service cable into each property, lamp column and street sign, etc.
 All cables must be treated as being live unless proved otherwise by UK Power Networks.

- 6. The information proved must be given to all people working near UK Power Networks plant and equipment. Do not use plans more than 3 months after the issue date for excavation purposes.
- it is your responsibility to identify their location.
- 7. Please be aware that electric cables/lines belonging to other owners of licensed electricity distribution systems may be present and

of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever. 4. This plan has been provided to you on the basis of the terms of use set out in the covering letter that accompanies this plan. If you do not accept and/or do not understand the terms of use set out in the covering letter you must not use the plan and must return it to the sender of the letter.

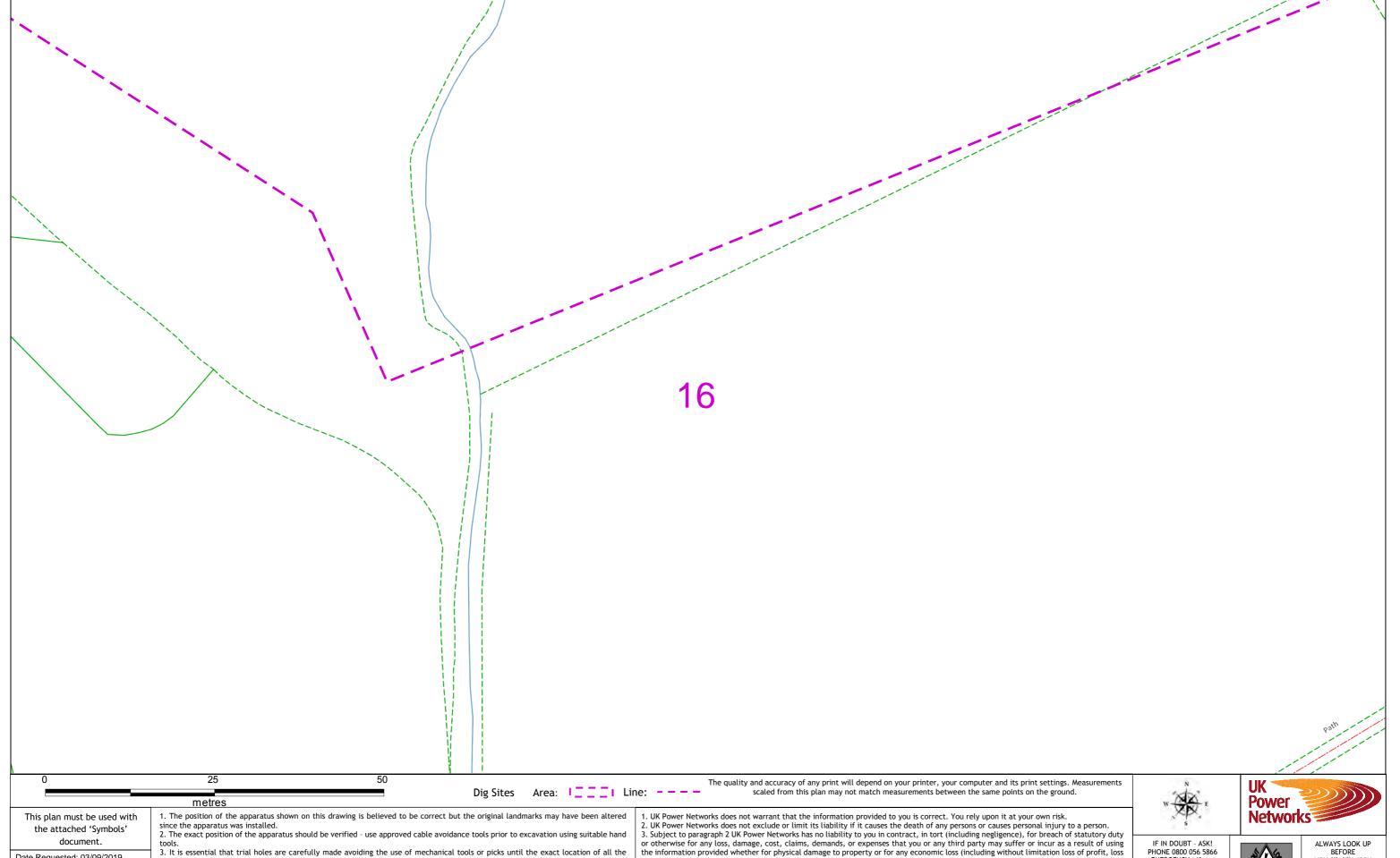
5. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.

EMERGENCY - If you damage a cable or line Phone 0800 783 8838 (24hrs) URGENTLY



YOU START WORK Refer to HSE Guidance note GS6

Maps produced at 1:2500 scale are Geo-Schematics which show LV mains cables and overhead lines (in some cases all voltages). Prior to carrying out excavations you must refer to the 1:500 records to determine the location of all known underground plant and equipment.



Date Requested: 03/09/2019 Job Reference: 16383975 Site Location: 506920 252458 Requested by:

Mr Martin Ándrews Your Scheme/Reference: 248 Salph

Scale: 1:500 (When plotted at A3)

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 All cables must be treated as being live unless proved otherwise by UK Power Networks.

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- than 3 months after the issue date for excavation purposes.
- 7. Please be aware that electric cables/lines belonging to other owners of licensed electricity distribution systems may be present and it is your responsibility to identify their location.

of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever. 4. This plan has been provided to you on the basis of the terms of use set out in the covering letter that accompanies this plan. If you do not accept and/or do not understand the terms of use set out in the covering letter you must not use the plan and must return it to the sender of the letter.

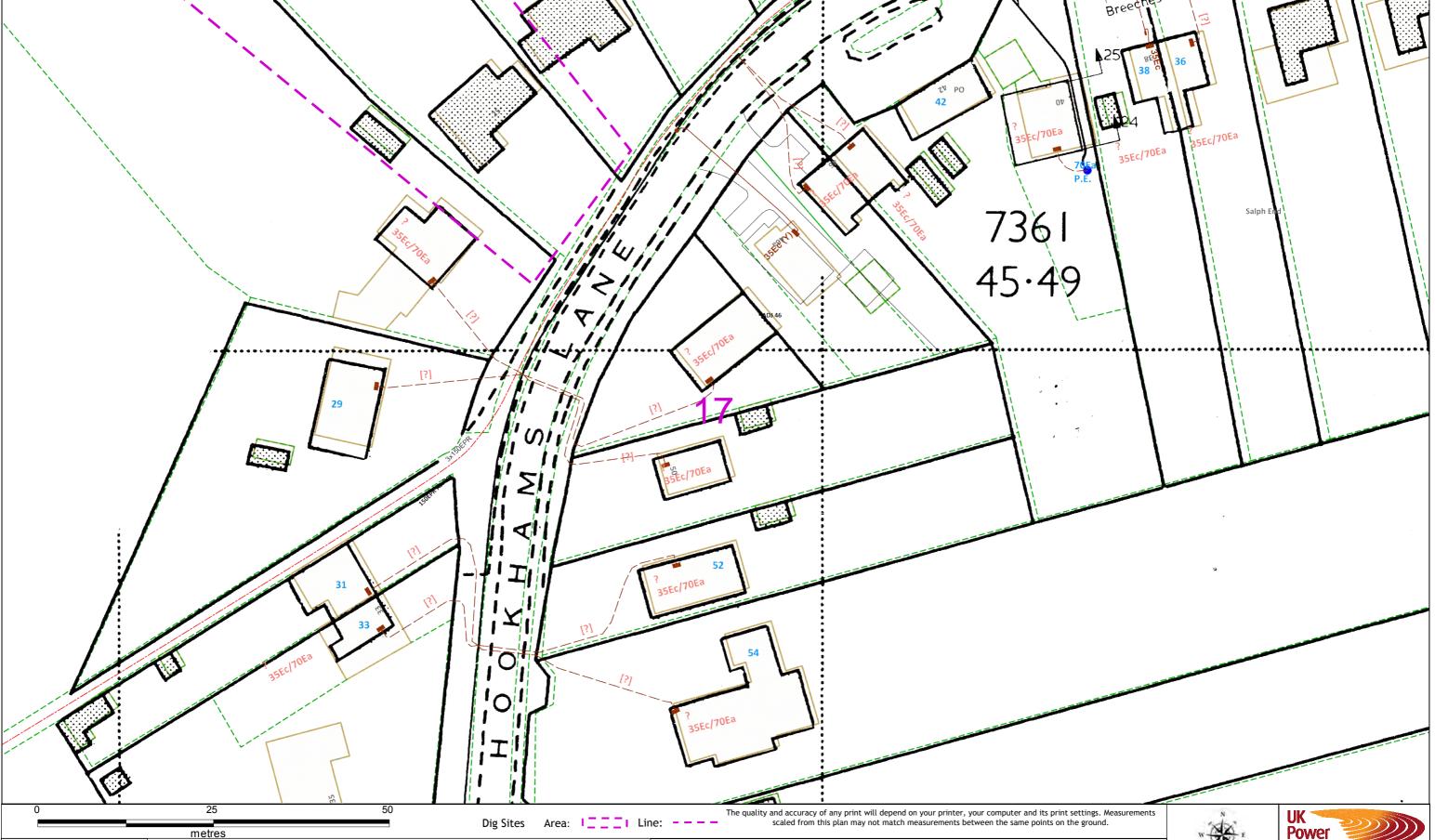
5. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.

PHONE 0800 056 5866 EMERGENCY - If you damage a cable or line Phone 0800 783 8838 (24hrs) URGENTLY



ALWAYS LOOK UP BEFORE YOU START WORK Refer to HSE Guidance note GS6

Maps produced at 1:2500 scale are Geo-Schematics which show LV mains cables and overhead lines (in some cases all voltages). Prior to carrying out excavations you must refer to the 1:500 records to determine the location of all known underground plant and equipment.



This plan must be used with the attached 'Symbols' document.

Date Requested: 03/09/2019 Job Reference: 16383975 Site Location: 506920 252458 Requested by:

Mr Martin Andrews

Your Scheme/Reference: 248 Salph

Scale: 1:500 (When plotted at A3)

- 1. The position of the apparatus shown on this drawing is believed to be correct but the original landmarks may have been altered since the apparatus was installed.
- 2. The exact position of the apparatus should be verified use approved cable avoidance tools prior to excavation using suitable hand 3. It is essential that trial holes are carefully made avoiding the use of mechanical tools or picks until the exact location of all the
- cables have been determined. 4. It must be assumed that there is a service cable into each property, lamp column and street sign, etc. 5. All cables must be treated as being live unless proved otherwise by UK Power Networks.
- 6. The information proved must be given to all people working near UK Power Networks plant and equipment. Do not use plans more than 3 months after the issue date for excavation purposes.
- 7. Please be aware that electric cables/lines belonging to other owners of licensed electricity distribution systems may be present and it is your responsibility to identify their location.
- 1. UK Power Networks does not warrant that the information provided to you is correct. You rely upon it at your own risk.

  2. UK Power Networks does not exclude or limit its liability if it causes the death of any persons or causes personal injury to a person.
- 3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise for any loss, damage, cost, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever.
- 4. This plan has been provided to you on the basis of the terms of use set out in the covering letter that accompanies this plan. If you do not accept and/or do not understand the terms of use set out in the covering letter you must not use the plan and must return it to the sender of the letter.
- 5. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.





IF IN DOUBT - ASK! PHONE 0800 056 5866 EMERGENCY - If you damage a cable or line Phone 0800 783 8838 (24hrs) URGENTLY



ALWAYS LOOK UP BEFORE YOU START WORK Refer to HSE Guidance note GS6

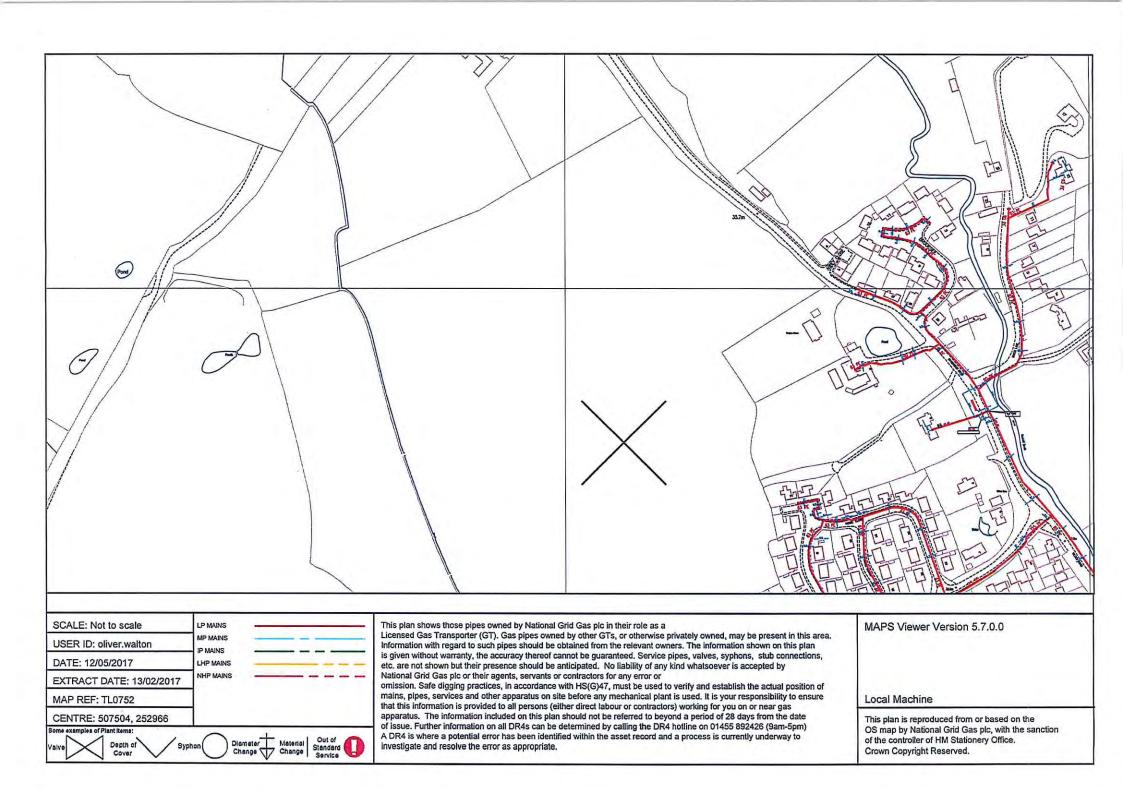
Maps produced at 1:2500 scale are Geo-Schematics which show LV mains cables and overhead lines (in some cases all voltages). Prior to carrying out excavations you must refer to the 1:500 records to determine the location of all known underground plant and equipment.

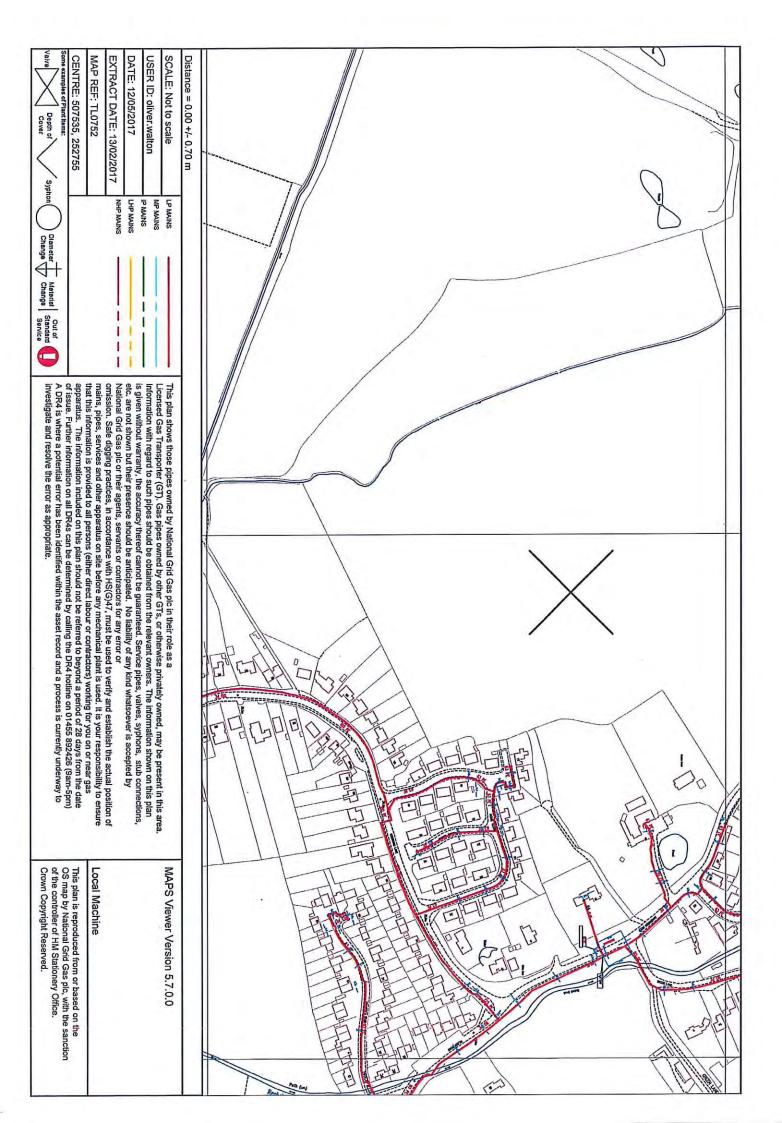
## **Services Appraisal**

## Land off Hookhams Lane, Salph End



**Appendix G**Gas Asset Plans





## **Services Appraisal**

## Land off Hookhams Lane, Salph End



## **Appendix H**Telecoms Asset Plans

# Maps by email Plant Information Reply



## IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



## openreach

## CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

## email cbyd@openreach.co.uk

(Office hours: Monday - Friday 08.00 to 17.00) www.openreach.co.uk/cbyd

## Accidents happen

If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

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KEY	TO BT SYM	BOLS	Change Of State	+	Hatchings	<b>XX</b>
	Planned	Live	Split Coupling	×	Built	/
PCP	12	Ø	Duct Tee		Planned	
Pole	0	0	Building		Inferred	^
Вох			Kiosk	(K)	Duct	/
Manhole		•	Other proposed plant is shown using dashed lines.  BT Symbols not listed above may be disregarded.  Existing BT Plant may not be recorded.			
Cabinet	1	Û				
					e of preparation fter the date of p	The second second second
	Pending Add	In Place	Pending Remove	Not In Use		
Power Cable	H-H	NN	A.A.	HH		
Power Duct	##		44	N/A	1	

BT Ref: KCE03402G

Map Reference: (centre) TL0745653057 Easting/Northing: (centre) 507456,253057

Issued: 03/09/2019 15:40:38

# Maps by email Plant Information Reply



## IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



## openreach

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FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

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(Office hours: Monday - Friday 08.00 to 17.00) www.openreach.co.uk/cbyd

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If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

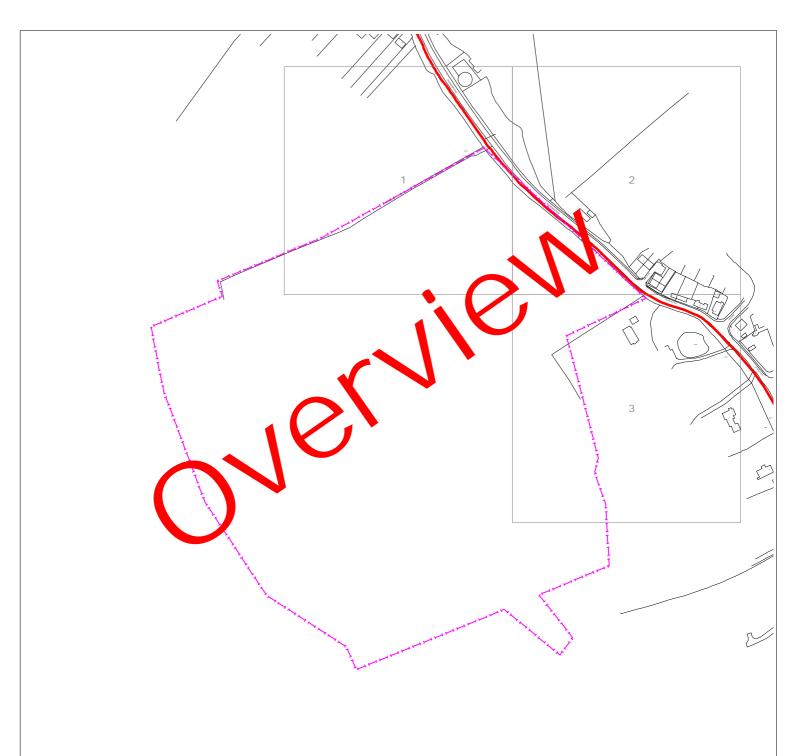
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KEY	TO BT SYM	BOLS	Change Of State	+	Hatchings	<b>XX</b>
	Planned	Live	Split Coupling	×	Built	1
PCP	12	Ø	Duct Tee		Planned	
Pole	0	0	Building		Inferred	^
Вох			Kiosk	(K)	Duct	-
Manhole			Other proposed plant is shown using dashed lines.  BT Symbols not listed above may be disregarded.  Existing BT Plant may not be recorded.			
Cabinet	1					
					e of preparation ter the date of p	the first of the second
	Pending Add	In Place	Pending Remove	Not In Use		
Power Cable	HH	NN	A.A.	HH		
-	7 7	-	1 1 1			

BT Ref: RLH03335C

Map Reference : (centre) TL075 1952820 Easting/Northing : (centre) 5075 19,252820

Issued: 03/09/2019 15:33:56



Company: Martin Andrews Consulting Ltd

Job Reference: 16383975

Your Scheme/Reference: 248 Salph End

Route

Dig Sites: Line --- Area ----

Scale on A4 paper: 1:1250

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Protecting Lives, Cables & Pipes In Emergency Call: +1 732 282 4001



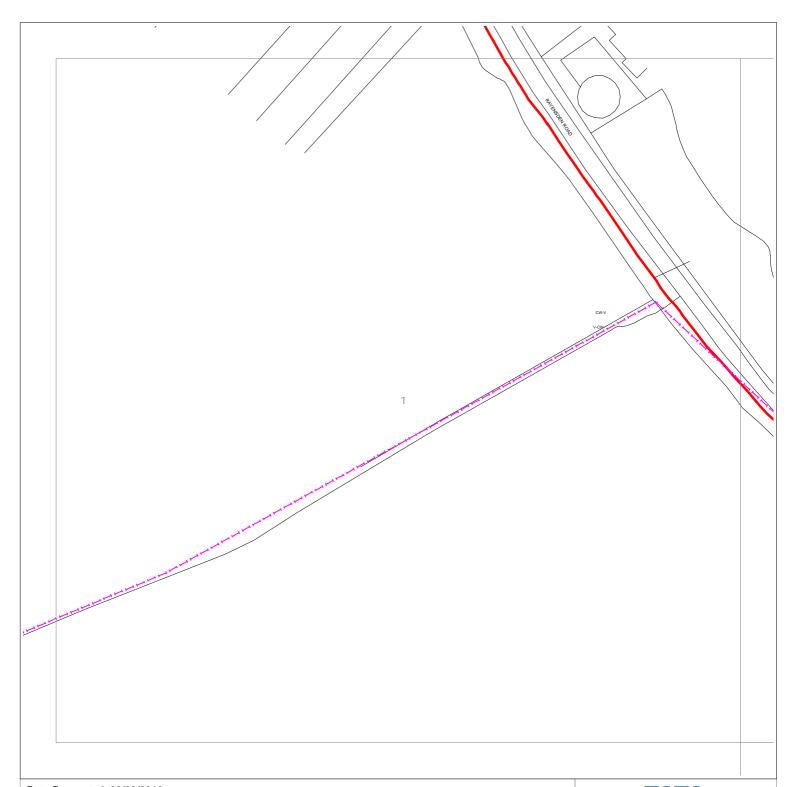
## TATA COMMUNICATIONS

#### Tata Communications Plant Protection Centre

c/o JSM Group Ltd Plant Protection Department Sterling House Mutton Lane Potters Bar Herts, EN6 3AR



01992 655 919 tatadiversions@jsmgroup.com



Company: Martin Andrews Consulting Ltd

Job Reference: 16383975

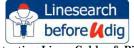
Your Scheme/Reference: 248 Salph End

Route

Area ..... Dig Sites: Line ----

Scale on A4 paper: 1:1250

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01992 655 919 tatadiversions@jsmgroup.com



Company: Martin Andrews Consulting Ltd

Job Reference: 16383975

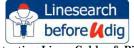
Your Scheme/Reference: 248 Salph End

Route

Area ..... Dig Sites: Line ---

Scale on A4 paper: 1:1250

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#### COMMUNICATIONS **Tata Communications Plant**

## **Protection Centre**

c/o JSM Group Ltd Plant Protection Department Sterling House Mutton Lane Potters Bar Herts, EN6 3AR



01992 655 919 tatadiversions@jsmgroup.com



Company: Martin Andrews Consulting Ltd

Job Reference: 16383975

Your Scheme/Reference: 248 Salph End

Route

Line ---- Area Dig Sites:

Scale on A4 paper: 1:1250

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Protecting Lives, Cables & Pipes In Emergency Call: +1 732 282 4001



### TATA COMMUNICATIONS

#### **Tata Communications Plant Protection Centre**

c/o JSM Group Ltd Plant Protection Department Sterling House Mutton Lane Potters Bar Herts, EN6 3AR



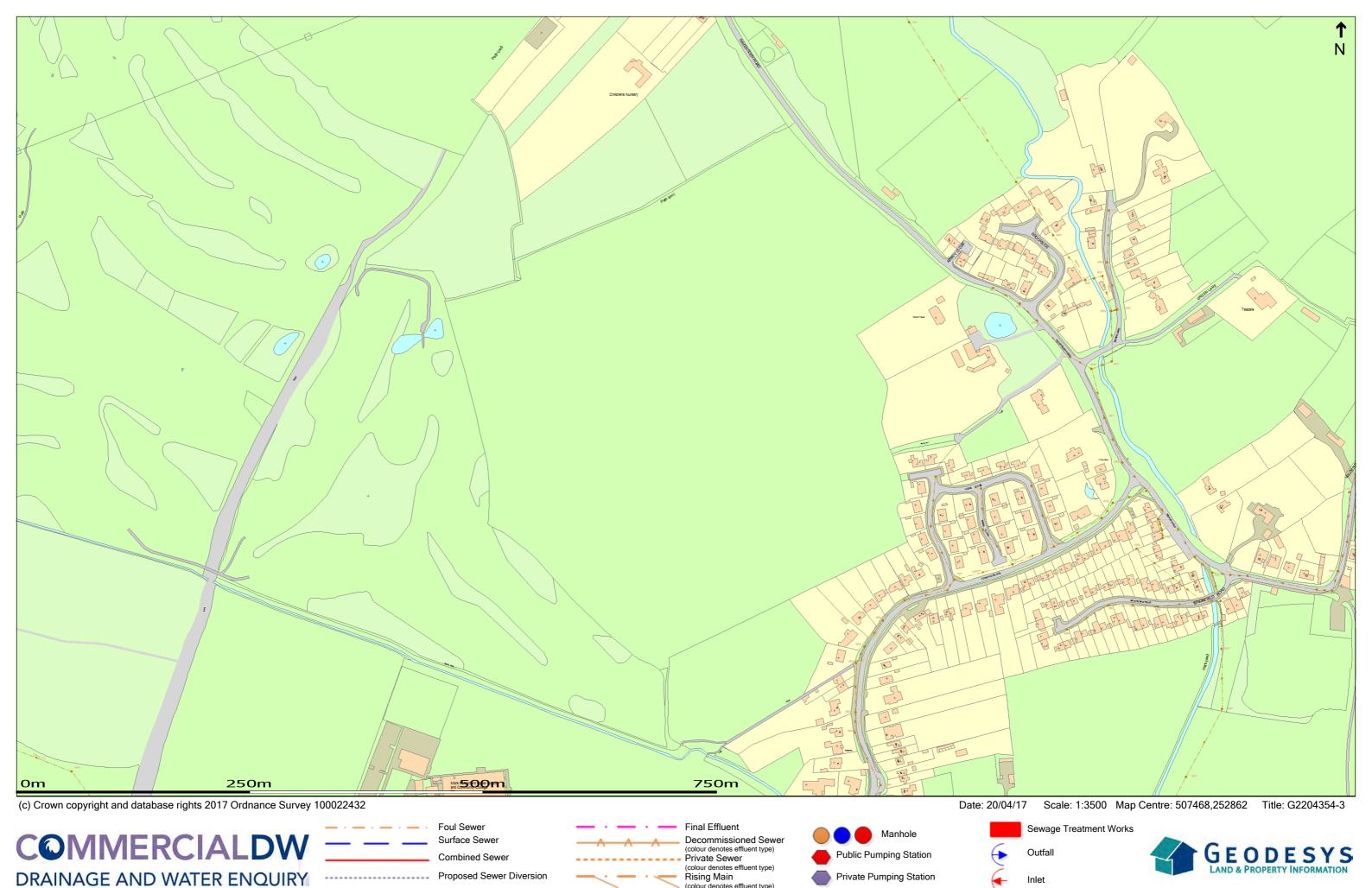
01992 655 919 tatadiversions@jsmgroup.com

## **Services Appraisal**

## Land off Hookhams Lane, Salph End



**Appendix I**Used Water Asset Plans



This plan is provided by Anglian Water pursuant its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This information is valid for the date printed. This plan is produced by Anglian Water Services Limited (c) Crown copyright and database rights 2017 Ordnance Survey 100022432. This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.

(colour denotes effluent type)

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0401	F	-	-	-
0501	F	-	-	-
0601	F	-	-	-
0602	F	-	-	-
0603	F	-	-	-
0604	F	-	-	_
0605	F	_	-	-
0606	F	_	-	-
0607	F	-	-	-
1601	F	-	-	_
1602	F	-	-	-
1603	F	-	-	-
1701	F	-	-	-
1702	F	-	-	-
6401	F	34.46	29.86	4.6
6501	F	-	-	-
6502	F	-	-	-
6503	F	-	-	-
6601	F	-	-	-
6602	F	-	-	-
7101	F	-	-	-
7201	F	-	-	-
7601	F	-	-	-
7602	F	-	-	-
7603	F	-	-	-
7701	F	-	-	-
7702	F	-	-	-
7703	F	-	-	-
7704	F	-	-	-
7901	F	-	-	-
8001	F	-	-	-
8101	F	-	-	-
8402	F	32.9	30.39	2.51
8601	F	-	-	-
8602	F	-	-	-
8701	F	-	-	-
8702	F	-	-	-
8901	F	-	-	-
8902	F	-	-	-
8903	F	-	-	-
8904	F	-	-	-
9001	F	-	-	-
9002	F	_	-	-
9003	F	-	-	-
9601	F	-	-	-
9602	F	-	-	-
9603	F	-	-	-
9701	F	-	-	-
0.01	•			

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
9702	F	-	-	-
9703	F	-	-	-
9704	F	-	-	-
9705	F	-	-	-
9706	F	-	-	-
9707	F	-	-	-
9708	F	-	-	-
9709	F	-	-	-
9801	F	-	-	-
9802	F	-	-	-
9901	F	-	-	-
9902	F	-	-	-
9903	F	-	-	-
9904	F	-	-	-
3304	1			-

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

## **Services Appraisal**

## Land off Hookhams Lane, Salph End



#### **Appendix J**

Clean and Used Water Pre-development Enquiry



Pre-Planning
Assessment Report
LAND OF HOOKHAMS LANE, SALPH END
150622/903883043/1/0065986

Report published 02/09/2019

#### **Section 1: Proposed development**

Thank you for submitting a pre-planning enquiry. This has been produced for Martin Andrews Consulting Ltd. Your reference number is **150622/903883043/1/0065986**. If you have any questions upon receipt of this report, please contact the Pre-Development team on 03456 066087 or email <a href="mailto:planningliaison@anglianwater.co.uk">planningliaison@anglianwater.co.uk</a>.

The response within this report has been based on the following information which was submitted as part of your application:

List of planned developments				
Type of development	No. Of units			
Dwellings	400			
Non-residential	1			

The anticipated residential build rate is:

Year	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9
Build rate	50	50	50	50	50	50	50	50	1

Site grid reference no.

TL0748052874

Development type

Greenfield

Planning application status

Unknown

The comments contained within this report relate to the public water mains and sewers indicated on our records. Your attention is drawn to the disclaimer in the useful information section of this report.

#### Section 2: Assets affected

Our records indicate that we have the following types of assets within or overlapping the boundary of your development site as listed in the table below.

Additionally, it is highly recommended that you carry out a thorough investigation of your proposed working area to establish whether any unmapped public or private sewers and lateral drains are in existence. We are unable to permit development either over or within the easement strip without our prior consent. The extent of the easement is provided in the table below. Please be aware that the existing water mains/public sewers should be located in highway or open space and not in private gardens. This is to ensure available access for any future maintenance and repair and this should be taken into consideration when planning your site layout.

Water and Used water easement information					
Asset type	Pipe size (mm)	Total easement required (m)			
Water mains	100	4.50 m either side of the centre line			
Water mains	100	4.50 m either side of the centre line			
Water mains	97	4.50 m either side of the centre line			

If it is not possible to avoid our assets then these may need to be diverted in accordance with Section 185 of the Water Industry Act (1991). You will need to make a formal application if you would like a diversion to be considered.

Due to the private sewer transfer in October 2011 many newly adopted public used water assets and their history are not indicated on our records. You also need to be aware that your development site may contain private water mains, drains or other assets not shown on our records. These are private assets and not the responsibility of Anglian Water but that of the landowner.

#### **Section 3: Water supply**

In examining the available capacity for your development site we assess the capacity and costs for two categories of water main. These are:

#### Strategic:

These are the offsite potable water mains which deliver water within an area to a large number of development sites often across a number of towns. The strategic provision of these water mains enables us to provide of the cheapest solution across a large geographical area.

#### Local reinforcement:

These are localised reinforcement mains to enable us to provide water to your development site.

On most sites we also have two categories of water mains the Spine Mains and Housing Estate Mains (HEMS). To support your budgeting arrangements we have also examined the estimated cost for delivering the onsite water mains needed for a site of your size.

#### Water supply network

There is insufficient capacity in the current network to supply this development site and therefore offsite reinforcements are needed. Details of the necessary upgrades can be found in the water infrastructure section of this report and the cost of these works are included in the Zonal charge. If you wish to proceed with the development then you will need to complete an application for a new supply. This is recommended to be done at the earliest opportunity as it could take a minimum of 18 months to install any offsite reinforcement works. The connection point for the site will be from the existing water main in Ravensden Road . The site should be connected to the existing and reinforced 4in AC main in Ravensden Road with a 180mm HPPE SDR17 connection and pipework

#### r Connection point(s)

Connection Point

CP-1538

Address

Ravensden Road

National Grid Reference (NGR)

TL0768253071

#### **Water Infrastructure & Costs**

In order to supply your site, the following upgrades are required:

Estimated Local reinforcement Mains	Based on
Ravensden Road Salph End	Offsite mains reinforcement is required comprising of 2.4km of 180mm HPPE SDR17 from the 225mm MDPE main where it crosses Thurleigh Road Ravensden southeast along Thurleigh Road, Oldways Road, and Renhold Road / Ravensden Road to the 4in AC main at the sites point of connection in Salph End, this assumes that the meter HFRRWM is out of service as shown on GNet, if it is still used then the offsite main must finish at the meter and restart after it. Start grid ref TL0614754768, end grid ref TL0768253071. Assumed complex due to length. Zonal Charge

As a result of the recent charging rules published by Ofwat, our charging regime has changed. Your development site will be required to pay a Zonal charge for each new property connecting to our water supply network that benefits from Full planning permission.

Payment of the Zonal charge must be made before premises are connected to our water supply network. More information on the Zonal charge can be found at <a href="http://www.anglianwater.co.uk/developers/charges">http://www.anglianwater.co.uk/developers/charges</a>

The Zonal charge consists of two elements. The first is called the 'Fixed Element' which is the same in nature to the Infrastructure charge applied prior to April 2018. The second is called the 'Variable Element' which may vary each financial year.

The elements are combined together to create the 2018/19 Zonal charge for Water:

Fixed Element	£ 370
Variable Element	£ 88.50

In most circumstances zonal charges are raised on a standard basis of one charge per new connection (one for water and one for sewerage). However, if the new connection is to non-household premises, the fixed element is calculated according to the number and type of water fittings in the premises. This is called the "relevant multiplier" method of calculating the charge. Details of the relevant multiplier for each fitting can be found at our web-page: http://www.anglianwater.co.uk/developers/charges/

The total Zonal charge payable for your site for Water is:

Zonal charge per new connection - Water	No. Of Units	Total amount payable
£ 458.50	400	£ 183,400.00

The estimated\* Onsite Water Mains cost for your site is:

Estimated Onsite Water Mains	
Onsite water mains costs	£ 28,800.00

<sup>\*</sup>A detailed cost breakdown will be provided on receipt of a formal application for a new water main.

In addition, you also have the ability to construct the onsite water mains under a self-lay agreement. In such cases, an Asset Payment is made by Anglian Water following commissioning and adoption of the assets. The Asset Payment is calculated as required in the Water Act 2003. For more information on the self-lay of water mains please see <a href="http://www.anglianwater.co.uk/developers/self-lay">http://www.anglianwater.co.uk/developers/self-lay</a>.

You will also need to budget for connection costs.Please note that we offer alternative types of connections depending on your needs and these costs are available in our annual charges booklet, which can be downloaded from <a href="http://www.anglianwater.co.uk/developers/charges">http://www.anglianwater.co.uk/developers/charges</a>

#### **Section 4: Water recycling services**

In examining the used water system we assess the ability for your site to connect to the public sewerage network without causing a detriment to the operation of the system. We also assess the receiving water recycling centre and determine whether the water recycling centre can cope with the increased flow and influent quality arising from your development.

#### Water recycling centre

The foul drainage from this development is in the catchment of Bedford Water Recycling Centre, which currently does not have capacity to treat the flows from your development site. Anglian Water are obligated to accept the foul flows from your development with the benefit of planning consent and would therefore take the necessary steps to ensure that there is sufficient treatment capacity should the planning authority grant planning permission.

#### Used water network

Our assessment has been based on development flows connecting to the nearest foul water sewer of the same size or greater pipe diameter to that required to drain the site. The infrastructure to convey foul water flows to the receiving sewerage network is assumed to be the responsibility of the developer. Conveyance to the connection point is considered as Onsite Work and includes all work carried out upstream from of the point of connection, including making the connection to our existing network. This connection point has been determined in reference to the calculated discharge flow and on this basis, a 225mm internal diameter pipe is required to drain the development site. The nearest practicable connection is to the 525mm diameter sewer at manhole 4301 in Wentworth Drive at National Grid Reference NGR TL0741052306. The cover level is 31.59m and the invert level is 27.53m. Anglian water has assessed the impact of gravity flows from the planned development to the public foul sewerage network. We can confirm that this is acceptable as the foul sewerage system, at present, has available capacity for your site. Please note that Anglian Water will request a suitably worded condition at planning application stage to ensure this strategy is implemented to mitigate the risk of flooding.

It is assumed that the developer will provide the necessary infrastructure to convey flows from the site to the network. Consequently, this report does not include any costs for the conveyance of flows.

#### Surface water disposal

You indicated on the Pre-Planning Application form that a connection to the public surface water sewer network is not required as infiltration techniques can be utilised. Therefore a capacity assessment has not been made on the public surface water network.

As you may be aware, Anglian Water will consider the adoption of SuDs provided that they meet the criteria outline in our SuDs adoption manual. This can be found on our website at <a href="http://www.anglianwater.co.uk/developers/suds.aspx">http://www.anglianwater.co.uk/developers/suds.aspx</a>. We will adopt features located in public open space that are designed and constructed, in conjunction with the Local Authority and Lead Local Flood Authority (LLFA), to the criteria within our SuDs adoption manual. Specifically, developers must be able to demonstrate:

- 1. Effective upstream source control,
- 2. Effective exceedance design, and
- 3. Effective maintenance schedule demonstrating than the assets can be maintained both now and in the future with adequate access.

If you wish to look at the adoption of any SuDs then an expression of interest form can be found on our website at: <a href="http://www.anglianwater.co.uk/developers/suds.aspx">http://www.anglianwater.co.uk/developers/suds.aspx</a>

The proposed method of surface water disposal is not relevant to Anglian Water; we suggest that you contact the relevant Local Authority, Lead Local Flood Authority, the Environment Agency or the Internal Drainage Board, as appropriate.

#### **Trade Effluent**

We note that you do not have any trade effluent requirements. Should this be required in the future you will need our written formal consent. This is in accordance with Section 118 of the Water Industry Act (1991).

#### **Used Water Budget Costs**

As a result of the recent charging rules published by Ofwat, our charging regime has changed. Your development site will be required to pay a Zonal charge for each new property connecting to the public sewer that benefits from Full planning permission.

Payment of the Zonal charge must be made before premises are connected to the public sewer. More information on the Zonal charge can be found at <a href="http://www.anglianwater.co.uk/developers/charges">http://www.anglianwater.co.uk/developers/charges</a>

The Zonal charge consists of two elements. The first is called the 'Fixed Element' which is the same in nature to the Infrastructure charge applied prior to April 2018. The second is called the 'Variable Element' which may vary each financial year.

The elements are combined together to create the 2018/19 Zonal charge for Sewerage:

Fixed Element	£ 370
Variable Element	£ 101

In most circumstances zonal charges are raised on a standard basis of one charge per new connection (one for water and one for sewerage). However, if the new connection is to non-household premises, the fixed element is calculated according to the number and type of water fittings in the premises. This is called the "relevant multiplier" method of calculating the charge. Details of the relevant multiplier for each fitting can be found at our web-page: <a href="http://www.anglianwater.co.uk/developers/charges/">http://www.anglianwater.co.uk/developers/charges/</a>

The total Zonal charge payable for your site for Sewerage is:

Zonal charge per new connection - Sewerage	No. Of Units	Total amount payable
£ 471	400	£ 188,400.00

It has been assumed that the onsite used water network will be provided under a section 104 Water Industry Act application.

It is recommended that you also budget for connection costs. Please note that we offer alternative types of connections depending on your needs and these costs are available at our website.

#### **Section 5: Map of Proposed Connection Points**



Figure 1:Showing your water point of connection



#### Figure 2:Showing your used water point of connection

#### **Section 6: Useful Information**

#### Water

#### Water Industry Act - Key Water Sections:

#### Section 41:

This provides you with the right to requisition a new water main for domestic purposes to connect your site to the public water network.

#### Section 45:

This provides you with the right to have a connection for domestic purposes from a building or part of a building to the public water main.

#### Section 51A - E

This provides you with the right to provide the water main or service connection yourself and for us to vest them into our company.

#### Section 55:

This applies where you request a supply of water for non domestic purposes.

#### Section 185:

This provides you with the right to make a reasonable request to have a public water main, sewer or public lateral drain removed or altered, at your expense. Details on how to make an application and the s185 form is available on our website at <a href="http://www.anglianwater.co.uk/developers">http://www.anglianwater.co.uk/developers</a> or via our Development Services team on 03456 066087.

Details on how you can make a formal application for a new water main, new connection or diversion are available on from our Development Services team on 03456 066087 or via our website at http://www.anglianwater.co.uk/developers

If you have any other queries on the rights to requisition or connect your housing to the public water and sewerage infrastructure then please contact our Development Services team at: Developer Services, Anglian Water, PO Box 495, Huntingdon, PE29 6YY or Telephone: 0345 60 66 087 or Email: developerservices@anglianwater.co.uk

Water pressure and flow rate: The water pressure and consistency that we must meet for your site is laid out in the Water Industry Act(1991). This states that we must supply a flow rate of 9 litres per minute at a pressure of 10 metres of head to the external stop tap. If yourwater pressure requirements exceed this then you will need to provide and maintain any booster requirements to the development site.

Self Lay of Water Mains: A list of accredited Self Lay Organisations can be found at <a href="https://www.lr.org/en/utilities/water-industry-registration-scheme-wirs-wirsae/search/">https://www.lr.org/en/utilities/water-industry-registration-scheme-wirs-wirsae/search/</a>

#### **Used water**

#### **Water Industry Act – Key Used Water Sections:**

#### Section 98:

This provides you with the right to requisition a new public sewer. The new public sewer can be constructed by Anglian Water on your behalf. Alternatively, you can construct the sewer yourself under section 30 of the Anglian Water Authority Act 1977.

#### Section 102:

This provides you with the right to have an existing sewerage asset vested by us. It is your responsibility to bring the infrastructure to an adoptable condition ahead of the asset being vested.

#### Section 104:

This provides you with the right to have a design technically vetted and an agreement reached that will see us adopt your assets following their satisfactory construction and connection to the public sewer.

#### Section 106:

This provides you with the right to have your constructed sewer connected to the public sewer.

#### Section 185:

This provides you with the right to have a public sewerage asset diverted.

Details on how to make a formal application for a new sewer, new connection or diversion are available on our website at <a href="http://www.anglianwater.co.uk/developers">http://www.anglianwater.co.uk/developers</a> or via our Development Services team on 03456 066087.

#### Sustainable drainage systems:

Many existing urban drainage systems can cause problems of flooding, pollution or damage to the environment and are not resilient to climate change in the long term. Therefore our preferred method of surface water disposal is through the use of Sustainable Drainage Systems (SuDS). SuDS are a range of techniques that aim to mimic the way surface water drains in natural systems within urban areas. For more information on SuDS, please visit our website at <a href="http://www.anglianwater.co.uk/developers/suds.aspx">http://www.anglianwater.co.uk/developers/suds.aspx</a>. We also recommend that you contact the Local Authority and Lead Local Flood Authority (LLFA) for the area to discuss your application.

#### **Private sewer transfers:**

Sewers and lateral drains connected to the public sewer on the 1 July 2011 transferred into Water Company ownership on the 1 October 2011. This follows the implementation of the Floods and Water Management Act (FWMA). This included sewers and lateral drains that were subject to an existing Section 104 Adoption Agreement and those that were not. There were exemptions and the main non-transferable assets were as follows:

- Surface water sewers and lateral drains that did not discharge to the public sewer, e.g. those that discharged to a watercourse.
- Foul sewers and lateral drains that discharged to a privately owned sewage treatment/collection facility.
- Pumping stations and rising mains will transfer between 1 October 2011 and 1 October 2016.

The implementation of Section 42 of the FWMA will ensure that future private sewers will not be created. It is anticipated that all new sewer applications will need to have an approved section 104 application ahead of a section 106 connection.

#### **Encroachment:**

Anglian Water operates a risk based approach to development encroaching close to our used water infrastructure. We assess the issue of encroachment if you are planning to build within 400 metres of a water recycling centre or, within 15 metres to 100 metres of a pumping station. We have more information available on our website at

http://anglianwater.co.uk/developers/encroachment.aspx

#### Locating our assets:

Maps detailing the location of our water and used water infrastructure including both underground assets and above ground assets such as pumping stations and recycling centres are available from . All requests from members of the public or non-statutory bodies for maps showing the location of our assets will be subject to an appropriate administrative charge. We have more information on our website at: <a href="http://www.anglianwater.co.uk/developers/our-assets/">http://www.anglianwater.co.uk/developers/our-assets/</a>

#### **Summary of charges:**

A summary of this year's water and used water connection and infrastructure charges can be found at <a href="http://www.anglianwater.co.uk/developers/charges">http://www.anglianwater.co.uk/developers/charges</a>

#### Disclaimer:

The information provided in this report is based on data currently held by Anglian Water Services Limited ('Anglian Water') or provided by a third party. Accordingly, the information in this report is provided with no guarantee of accuracy, timeliness, completeness and is without indemnity or warranty of any kind (express or implied).

This report should not be considered in isolation and does not nullify the need for the enquirer to make additional appropriate searches, inspections and enquiries. Anglian Water supports the plan led approach to sustainable development that is set out in the National Planning Policy Framework ('NPPF') and any infrastructure needs identified in this report must be considered in the context of current, adopted and/or emerging local plans. Where local plans are absent, silent or have expired these needs should be considered against the definition of sustainability holistically as set out in the NPPF.

Whilst the information in this report is based on the presumption that proposed development obtains planning permission, nothing in this report confirms that planning permission will be granted or that Anglian Water will be bound to carry out the works/proposals contained within this report.

No liability whatsoever, including liability for negligence is accepted by Anglian Water, or its partners, employees or agents, for any error or omission, or for the results obtained from the use of this report and/or its content. Furthermore in no event will any of those parties be liable to the applicant or any third party for any decision made or action taken as a result of reliance on this report.

This report is valid for the date printed and the enquirer is advised to resubmit their request for an up to date report should there be a delay in submitting any subsequent application for water supply/sewer connection(s).

## **Services Appraisal**

## Land off Hookhams Lane, Salph End



#### **Appendix K**

**Electricity Pre-development Enquiry** 



Registered Office Newington House 237 Southwark Bridge Road London SE1 6NP Company: UK Power Networks (Operations) Limited

Registered in England and Wales No: 3870728

Mr Martin Andrews 8 Corn Kiln Close Cogenhoe Northamptonshire NN7 1NX Date 30.08.2019

Our Ref: 8500127012 / QID 3000021319

Dear Mr Andrews,

#### Site Address: Hookhams Lane, MK41 0JT

Thank you for your recent enquiry regarding the above premises. I am writing to you on behalf of Eastern Power Networks plc the licensed distributor of electricity for the above address trading as UK Power Networks.

I am pleased to be able to provide you with a budget estimate for the work.

It is important to note that this budget estimate is intended as a guide only. It may have been prepared without carrying out a site visit or system studies. No enquiry has been made as to the availability of consents or the existence of any ground conditions that may affect the ground works. It is not an offer to provide the connection and nor does it reserve any capacity on UK Power Networks electricity distribution system.

#### Budget estimate:

The budget estimation for this work is:

#### **Diversionary Works:**

£ 70,000.00 (exclusive of VAT) for altering the existing overhead high voltage network, currently on-site. UKPN shall propose to remove the existing overhead high voltage network that currently spans from the sites northern boundary to the sites southern boundary, and from the centre of the site to the eastern boundary. In order to reconnect the high voltage network, a new cable will be laid from the northern area of the site and shall extend underground through the sites eastern boundary and then into the southern area of the site.

#### High Voltage Point Of Connection for up to 950kVA

£ 640,000.00 (exclusive of VAT) if the Point Of Connection (POC) is to the proposed high voltage network along the sites eastern boundary. Once the diversion works have taken place, UKPN will propose to extend two high voltage cables from the newly undergrounded, high voltage network along the sites eastern boundary. The cables shall extend into a central location and will terminate into an on-site, ringed, 1 MVA substation. From the substation we shall lay low voltage mains cables throughout the site in order to facilitate the connection of  $1 \times 3 \text{PH}$  400A 150 kVA service for the Primary School and  $400 \times 1 \text{PH}$  100 A 2 kVA services for the houses.

This budget estimate is based on the following assumptions:

- The most appropriate Point of Connection (POC) is as described above.
- A viable cable or overhead line route exists along the route we have assumed between the Point of Connection (POC) and your site.

- In cases where the Point of Connection (POC) is to be at High Voltage, that a substation can be located on your premises at or close to the position we have assumed.
- Where electric lines are to be installed in private land UK Power Networks will require an easement in
  perpetuity for its electric lines and in the case of electrical plant the freehold interest in the substation site, on
  UK Power Networks terms, without charge and before any work commences.
- You will carry out, at no charge to UK Power Networks, all the civil works within the site boundary, including
  substation bases, substation buildings where applicable and the excavation/reinstatement of cable trenches.
- Unless stated in your application, all loads are assumed to be of a resistive nature. Should you intend to install equipment that may cause disturbances on UK Power Networks' electricity distribution system (e.g. motors; welders; etc.) this may affect the estimate considerably.
- All UK Power Networks' work is to be carried out as a continuous programme of work that can be completed substantially within 12 months from the acceptance of the formal offer.

Please note that if any of the assumptions prove to be incorrect, this may have a significant impact on the price in any subsequent quotation. You should note also that UK Power Networks' formal connection offer may vary considerably from the budget estimate. If you place reliance upon the budget estimate for budgeting or other planning purposes, you do so at your own risk.

If you would like to proceed to a formal offer of connection then you should apply for a quotation. Please refer to our website <u>click here</u> for `The connection process' which details our application process.

To help us progress any future enquiry as quickly as possible please quote the UK Power Networks Reference Number from this letter on all correspondence.

If you have any questions about your budget estimate or need more information, please do not hesitate to contact me. The best time to call is between the hours of 9am and 4pm, Monday to Friday. If the person you need to speak to is unavailable or engaged on another call when you ring, you may like to leave a message or call back later.

Yours sincerely

Mr. Hayden Jones

METROPOLITAN HOUSE POTTERS BAR, HERTS

EN6 1AG

01279 824 624

PRELIMSEPN@UKPOWERNETWORKS.CO.UK