AQUA TERRA | CONSULTING

Land North of Borers Arms Road: Soakaway Testing

P25002_R2_Rev2
November 2025

AQUA TERRA
CONSULTING

Document Control

Title

Land North of Borers Arms Road: Soakaway Testing

Client

Fairfax Acquisitions Limited,
Buncton Barn,
Buncton Lane,
Bolney,
Haywards Heath,
RH17 5RE

Reference

P25002_R2_Rev1

Status

Final

Document reference	Issue date	Comments	Written by	Approved by
P25002_R2	April 2025	Final	RLW	JEM
P25002_R2_Rev1	September 2025	Updated Site boundary	RLW	JEM
P25002_R2_Rev2	November 2025	Updated title	RLW	JEM

Table of Contents

List of Tables

Drawings

P25002_R2_D01_Rev1 Site Location

P25002_R2_D02 _Rev1 Exploratory positions plan

List of Appendices

1. Introduction

1.1. Instruction

Aqua Terra Consultants Ltd (Aqua Terra) was instructed by Fairfax Acquisitions Limited (the Client) to undertake infiltration testing for a parcel of land to the west of Roundabouts Farm, Copthorne (the Site). Instruction to proceed in accordance with proposal P25002_P1 was confirmed by email dated 9th January 2025.

1.2. Site location

A Site location plan is presented as drawing P25002_R2_D01_Rev1 and the Site address is given as follows:

Land north of Borers Arms Road,
Copthorne,
Crawley,
Bristol,
RH10 3JE

The Site is approximately 13.2Ha in size and is centred on National Grid Reference 532494, 139692. The Site spans across a series of fields between Copthorne Bank at the west of the Site and Roundabouts Farm at the east. The majority of the Site is currently used to graze horses with the exception of the southern most section of the Site, which extends onto Borers Arm Yard, a commercial/ industrial estate.

1.3. Brief

The Client is planning to submit an outline planning application for a residential led development. To support the application a sustainable drainage strategy is required which this report supports by demonstrating whether infiltration drainage may be viable at the Site.

1.4. Scope

The scope of work was to undertake infiltration testing across the Site in accordance with BRE365 (2016), to inform the proposed development drainage strategy. Aqua Terra have also been commissioned to prepare a flood risk assessment and sustainable drainage strategy which the data herein informs and is presented separately.

1.5. Geology

A review of British Geological Survey (BGS) 1:50,000 scale mapping and Reigate map sheet 286 indicates the geological sequence underlying the Site is as follows:

- Superficial geology: None.
- Solid geology: Upper Tunbridge Wells Sand - Sandstone and siltstone (interbedded) across the majority of the Site. A band of Upper Tunbridge Wells Sand – Mudstone runs across the centre of the Site.

1.6. Limitations

This report is written strictly for the benefit of the Client and bound by the conditions presented in Appendix A.

2. Fieldwork

2.1. Limitations

No exploratory positions were located in the western most field to prevent tracking of mud along the busy road, Copthorne Bank. The three gateways providing access to the remaining fields were padlocked on Aqua Terra's arrival to the Site on 14th April 2025, resulting in a delay in commencing works. In addition, horses were noted to be grazing across all working areas. In response, heras fencing was placed around each trial pit location.

2.2. Fieldwork

Fieldwork was undertaken between 14th and 15th April 2025 with the location of each exploratory hole agreed with the Client and designed to minimise Site damage whilst providing suitable coverage.. Drawing P25002_R2_D02 details the locations of the exploratory holes, and the ground conditions encountered are discussed in Section 3. The works undertaken are summarised in the following table:

Table 2-1 Fieldwork undertaken

Work element	Comments/ rationale
Utilities and service clearance	Prior to the Site works a utilities report was obtained and each position was checked for services by trained and competent Aqua Terra staff using the plans (see Appendix B) and non-intrusive CAT and Genny techniques.
Trial pits	Four trial pit locations (TP01 to TP04) were machine excavated (using a tracked excavator) to depths of between 1.5m and 2.5m below ground level (m bgl). All trial pits were terminated on weathered bedrock within the Upper Tunbridge Wells Sand (refusal). The faces and base of each pit were cut to create as square a shape as possible, the dimensions of each pit were measured and recorded.
Logging of strata	All strata were logged by competent Aqua Terra staff in accordance with BS5930. The engineering logs are presented in Appendix C.
Soakaway testing	Soakaway testing in general accordance with BRE 365 (2016) was carried out in each trial pit using a 1,000 litre IBC, which rapidly inundated the trial pits to the required depth. Water levels were measured at regular intervals across the test period. If tests were successful, repeat tests were run in the same saturated pit as detailed by BRE365. The results of this testing are presented in Appendix D.
Backfill	On completion of excavation and testing, the pits were backfilled with arisings, which were compacted in discrete layers by the tracked excavator in reverse order to excavation. Excess materials were carefully mounded on the backfilled pits to accommodate future settlement.

3. Ground conditions

3.1. Strata Encountered

The strata encountered during the fieldwork are summarised as follows:

- **Topsoil:** Encountered in all exploratory positions typically as a grass covered, brown, slightly clayey, silty, fine to coarse SAND.
- **Upper Tunbridge Wells Sand:** Encountered as a light grey mottled orangish brown, silty fine to medium SAND in TP01, as a CLAY with varying quantities of silt and sand in TP02 to TP04. In all locations this was underlain by a light brown, gravelly, fine to medium SAND. Gravel is fine to coarse, sub angular of siltstone.

Exploratory logs of each position can be found in Appendix C and a photographic log is shown in Appendix E.

3.2. Progress and Obstructions

Trial pits were terminated on shallow bedrock between 1.5m bgl and 2.5m bgl.

3.3. Stability

All positions remained open and stable for the duration of soakaway testing.

3.4. Visual and olfactory evidence of contamination

There was no evidence of significant or gross impact to soils encountered within exploratory positions. However, suspected ACMs were identified in the western most field of the Site as part of the Site walkover carried out during these works.

3.5. Groundwater

A groundwater seepage was noted at the base of TP02 and TP03 at 1.85m bgl and 2.5m bgl respectively. In addition, the water level was noted to gradually rise from 1.25m bgl to 1.195m bgl over the course of 4 hours during the soakaway test in TP03.

4. Summary of infiltration testing results

A summary of the infiltration testing is presented in Table 4-1 below with full results presented in Appendix D. The infiltration values for each pit have been calculated in accordance with the methodology set out in BRE 365.

Table 4-1 Summary of infiltration testing

Trial pit	Depth of pit (m)	Geology of test section	Permeability (m/s)
TP01	1.5	Upper Tunbridge Wells Sand	Failed
TP02	1.85	Upper Tunbridge Wells Sand	Failed
TP03	2.4	Upper Tunbridge Wells Sand	Failed
TP04	2.5	Upper Tunbridge Wells Sand	Failed

All four of the infiltration tests failed to drain sufficiently with no repeat tests undertaken. This indicates that infiltration drainage is unlikely to be feasible at the Site.

5. Conclusions

5.1. Ground conditions encountered

The trial pitting confirmed the published geology at the Site, consisting of up to 0.4m of topsoil underlain by the Upper Tunbridge Wells Sand to the maximum excavated depth of 2.5m bgl.

Groundwater seepages were noted within the base of TP02 and TP03, which resulted in the water level rising during the soakaway testing in TP03.

5.2. Infiltration drainage potential

None of the positions drained away within sufficient timescales. As a result, it is possible to conclude that that soakaway drainage is unlikely to be suitable for the Site.

Drawings

AQUA TERRA

CONSULTING

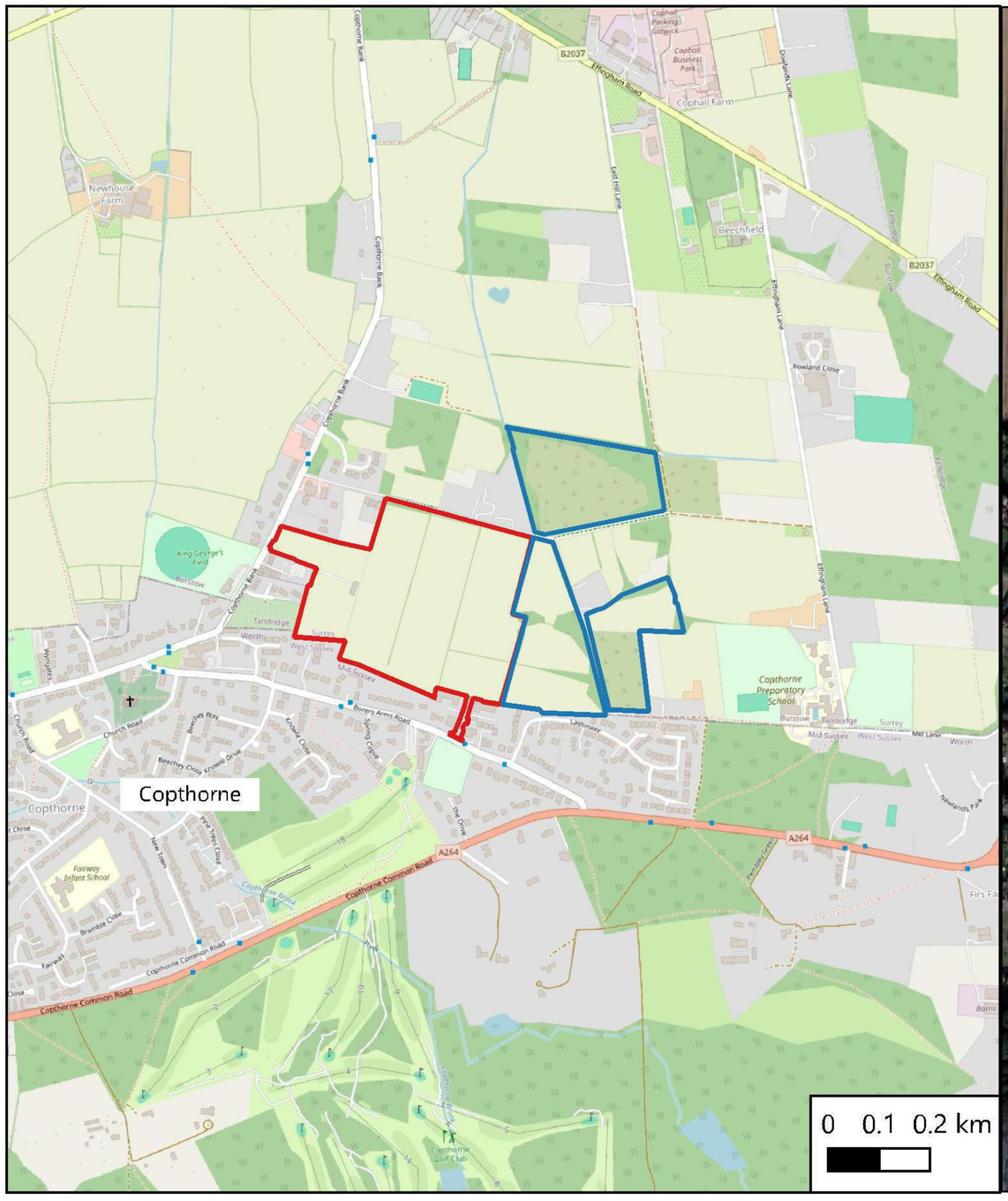


Figure Title

Site location

Client

Fairfax Acquisitions

Drawing Number

P25002_D01_Rev1

Scale

NTS

Original

A4

Project Number

P25002

Drawn

RLW

Checked

JEM

Date

15/09/2025

Site Location

Roundabouts Farm, Copthorne

AQUA TERRA CONSULTING

Figure Title

Exploratory hole locations

Client

Fairfax Acquisitions Ltd

Drawing Number	Scale	Original
P25002_R2_D02_Rev1	**1:5000**	**A4**
Project Number	**Drawn**	**Checked**
P25002	**RLW**	**JEM**
Date	**Site Location**	
15/09/2025	**Roundabouts Farm, Copthorne**	

Appendix A Report conditions

AQUA TERRA
CONSULTING

Report Conditions

This report has been prepared by Aqua Terra Consultants Ltd. (Aqua Terra) in its professional capacity as soil and groundwater specialists, with reasonable skill, care and diligence within the agreed scope and terms of contract and taking account of the manpower and resources devoted to it by agreement with its client and is provided by Aqua Terra solely for the internal use of its client.

The advice and opinions in this report should be read and relied on only in the context of the report, taking account of the terms of reference agreed with the client. The findings are based on the information made available to Aqua Terra at the date of the report (and will have been assumed to be correct) and on current UK standards, codes, technology, and practices as at that time. They do not purport to include any manner of legal advice or opinion. New information or changes in conditions and regulatory requirements may occur in future, which will change the conclusions presented here.

Where necessary and appropriate, the report represents and relies on published information from third party, publicly and commercially available sources which is used in good faith of its accuracy and efficacy. Aqua Terra cannot accept responsibility for the work of others.

Site investigation results necessarily rely on tests and observations within exploratory holes only. The inherent variation in ground conditions mean that the results may not be representative of ground conditions between exploratory holes. Aqua Terra take no responsibility for variation in ground conditions between exploratory positions.

This report is confidential to the client. The client may submit the report to regulatory bodies, where appropriate. Should the client wish to release this report to any other third party for that party's reliance, Aqua Terra may, by prior written agreement, agree to such release, if it is acknowledged that Aqua Terra accepts no responsibility of any nature to any third party to whom this report or any part thereof is made known. Aqua Terra accepts no responsibility for any loss or damage incurred as a result, and the third party does not acquire any rights whatsoever, contractual, or otherwise, against Aqua Terra except as expressly agreed with Aqua Terra in writing. Aqua Terra reserves the right to withhold and/ or negotiate the transference of reliance on this report, subject to legal and commercial review.

Registered in England and Wales with Company No. 15820480 at 14 Museum Place, 4th Floor, Cardiff, Wales, CF10 3BH

Appendix B Service Plans

AQUA TERRA
CONSULTING

Apogee Property
& Utility Consultants

Report Type: Full Utility Search

Apogee Job Number: 428946

Client Site Name: Roundabouts Farm

Client Job Number: P25002

Report Speed: 10 (Working) Days

Percentage Complete: 100%

No. Utilities Affected: 8

AQUA TERRA | CONSULTING

C2 Stats Plans Responses Summary

Apogee Job Number: 428946
Client Site Name: Roundabouts Farm
Percentage Complete: 100%

Client Job Number: P25002

Utility Name	Utility Type	Affected	Not Affected	No Response Received	Comments
UKPN	Electric	24/03/2025			
SGN	Gas	24/03/2025			
Eclipse Power	Multi		28/03/2025		
Energy Assets	Multi		24/03/2025		
GTC	Multi	28/03/2025			
Last Mile (Energetics)	Multi		24/03/2025		
Leep Utilities	Multi		28/03/2025		
Equans / Bring Energy	Multi		24/03/2025		
Southeast Water	Water	28/03/2025			
SES Water	Water	24/03/2025			
Thames Water	Sewerage	24/03/2025			
BT	Telecoms	28/03/2025			
Vodafone (C&W, Energis, Thus)	Telecoms			*	Not Requested By Client
Virgin Media	Telecoms			*	Not Requested By Client
Cityfibre	Telecoms		28/03/2025		
Colt (CA Telecom)	Telecoms		28/03/2025		
EUNetworks	Telecoms		24/03/2025		
Lumen Technologies	Telecoms		25/03/2025		
Kcom	Telecoms		25/03/2025		
MBNL	Telecoms		27/03/2025		
Sky	Telecoms		25/03/2025		
Sota	Telecoms		25/03/2025		
Arelion (Telent)	Telecoms		25/03/2025		
Verizon	Telecoms		25/03/2025		
Linesearch	Linesearch	24/03/2025			
Mast Data	Telecoms	28/03/2025			
Coal Authority	Mining		28/03/2025		

See end of report for acronyms key, basic risk assumptions and further information on how to interpret and use the information in this report.

Job No:	428946
Approved by:	David Haigh
Date of First Issue:	31/03/2025
Signature:	[redacted]

Date	Version	Created by	Description of change
31/03/2025	0.1	Keith Smith	First & Final Issue

Registered Office:
Newington House
237 Southwark Bridge Road
London SE1 6NP

Registered in England and Wales No: 3870728

Company:
UK Power Networks (Operations)
Limited

Our Ref: 36721946 Your Ref: 428946

Tuesday, 25 March 2025

Aaron Nickless
Hall Park Court Blount House Hall Park Court Hall Park Way
Telford
SHR
TF1 6QJ

Dear Aaron Nickless

Thank you for contacting us regarding UK Power Networks equipment at the above site. I have enclosed a copy of our records which show the electrical lines and/or electrical plant. I hope you find the information useful.

I have also enclosed a fact sheet which contains important information regarding the use of our plans and working around our equipment. Safety around our equipment is our number one priority so please ensure you have completed all workplace risk assessments before you begin any works.

Should your excavation affect our Extra High Voltage equipment (6.6 KV, 22 KV, 33 KV or 132 KV), please contact us to obtain a copy of the primary route drawings and associated cross sections.

If you have any further queries do not hesitate to contact us.

[redacted]

Registered Office:
Newington House
237 Southwark Bridge Road
London SE1 6NP

Registered in England and Wales No: 3870728

Company:
UK Power Networks (Operations)
Limited

This information is made available to you on the terms set out below. If you do not accept the terms of use set out in this fact sheet please do not use the plans and return them to UK Power Networks.

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 person or causes personal injury to a person where such death or personal injury is caused by its negligence.

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 how for any loss, damage, costs, 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. The information about UK Power Networks electrical plant and/or electric lines provided to you belongs to and remains the property of UK Power Networks. You must not alter it in any respect.

5. The information provided to you about the electrical plant and/or electric lines depicted on the plans may NOT be a complete record of such apparatus belonging to UK Power Networks. The information provided relates to electric lines and/or electrical plant belonging to UK Power Networks that it believes to be present but the plans are not definitive: other electric lines and/or electrical plant may be present and that may or may not belong to UK Power Networks.

6. Other apparatus not belonging to UK Power Networks is not shown on the plan. It is your responsibility to make your own enquiries elsewhere to discover whether apparatus belonging to others is present. It would be prudent to assume that other apparatus is present.

7. You are responsible for ensuring that the information made available to you is passed to those acting on your behalf and that all such persons are made aware of the contents of this letter.

8. Because the information provided to you may not be accurate, you are recommended to ascertain the presence of UK Power Networks electric lines and/or electrical plant by the digging of trial holes. Trial holes should be dug by hand only.

   Excavations must be carried out in line with the Health and Safety Executive guidance document HSG 47. We will not undertake this work. A copy of HSG 47 can be obtained from the Health and Safety Executives website.

   All electric lines discovered must be considered LIVE and DANGEROUS at all times and must not be cut, resited, suspended, bent or interfered with unless specially authorised by UK Power Networks.

   The electric line and electrical plant belonging to UK Power Networks remains so even when made dead and abandoned and any such electric line and/or electrical plant exposed shall be reported to UK Power Networks.

   Where your works are likely to affect our electric lines and/or electrical plant an estimate of the price of any protective /diversionary works can be prepared by UK Power Networks Branch at Metropolitan House, Darkes Lane, Potters Bar, Herts. , EN6 1AG, telephone no. 0845 2340040

Registered Office:
Newington House
237 Southwark Bridge Road
London SE1 6NP

Registered in England and Wales No: 3870728

Company:
UK Power Networks (Operations)
Limited

9 Any work near to any overhead electricity lines must be carried out by you in accordance with the Health and Safety Executive guidance document GS6 and the Electricity at Work Regulations.

The GS6 Recommendations may be purchased from HSE Books or downloaded from the Energy Networks Association's website.

If given a reasonable period of prior notice UK Power Networks will attend on site without charge to advise how and where "goal posts" should be erected. If you wish to use this service, in the first instance please telephone: 0845 6014516 between 08:30 and 17:00 Monday to Friday.

10. 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.

11. If in carrying out work on land in, on, under or over which is installed an electric line and/or electrical plant that belongs to UK Power Networks you and/or anyone working on your behalf damages (however slightly) that apparatus you must inform immediately UK Power Networks by our emergency 24 hour three digit telephone number **105** providing;

- your name, address and telephone number;
- the date, time and place at which such damage was caused;
- a description of the electric line and/or electrical plant to which damage was caused;
- the name of the person whom it appears to you is responsible for that damage;
- the nature of the damage.

12. The expression "UK Power Networks" includes UK Power Networks (EPN) plc, UK Power Networks (LPN) plc, UK Power Networks (SEPN) plc, UK Power Networks and any of their successors and predecessors in title.


Be Bright
Stay Safe
Stop!
Think before
you dig!
UK
Power
Networks
Delivering your electricity
ukpowernetworks.co.uk

Every year, people are killed or seriously injured when they come into contact with high voltage electricity.

This can have a far-reaching and devastating effect on family, friends and colleagues.

Distractions, working long hours, rushing to get the job done, can all impact on how we work and our safety.

Taking time to plan, being prepared and focusing on the way we work can help keep us safe.

The electricity network is designed to keep you safe. But how safe are you when you are working?

UK Power Networks is the country's biggest electricity distributor, making sure the lights stay on for more than eight million homes and businesses across London, the South East and the East of England.

The safety of our customers and staff is our top priority.

Underground cables carry a powerful electrical charge which can be conducted through machinery and equipment with fatal consequences. Anyone working close to live underground cables should take the time to read this simple leaflet and identify the precautions they should be taking.

Remember:

- The depth and location and services shown on plans may have change because of subsequent alterations
- Be aware that not all ca services may be shown plans
- Cables do not run in str lines. Underground cabl be deflected around underground obstacles change depth
- Wear Personal Protectiv Equipment to minimise harm of electric shock a

How can we help?

If you work or live in the UK Power Networks area contact us or look on our website. We provide free information and advice about the precautions and safe working practices to be followed when working close to electrical equipment.

Further advice and guidance is available from the Health and Safety Executive (HSE):
HSG85 - Electricity at Work – Safe Working Practices
GS6 - Avoiding Danger from Overhead Power Lines
HSG47 - Avoiding Danger from Underground Services

What to do in an emergency

If a mains electricity cable is damaged:

- **STOP WORK IMMEDIATELY**
- Notify UK Power Networks: Dial 105
- If you damage a cable, stay calm, keep clear, and call for help
- Call the emergency services if anyone is injured or there is a fire. Anyone who has received an electric shock should go to hospital as damage may have occurred to the heart
- Always treat the cable(s) as live even if they are not sparking
- Never remove anything that is stuck or in contact with the cable
- Stay clear - keep everyone away until assistance arrives

To request your FREE vehicle cab stickers visit the safety pages at **www.ukpowernetworks.co.uk**

If you are unsure who your network operator is then please visit **www.energynetworks.org**

Be Bright Stay S

You could be in danger whe activities such as digging, co

- **Contact UK Power Networks or Lir the works to obtain relevant cabl plans will only show the indicativ**
- **Ensure the cable plans are shown understood by those on site BEFO**
- **Confirm the cable location by usir Avoidance Tool (CAT) before diggi commences. Once found, mark ca positions with spray paint or simi**
- **Complete a risk assessment and e**
- **Use spades and shovels with insu**
- **Look around for anything in the v electricity service such as street li and identify where the cables are**
- **Look for electrical wires, cables a going to work and check for warr**
- **Contact UK Power Networks to ag work if there is a cable encased i DO NOT BREAK OPEN**
- **Make sure everyone on site is aw and location of electrical cables**
- **Before demolishing a building m disconnected, preferably well cle For guidance on how to arrange a www.ukpowernetworks.co.uk**

Be Bright Stay Safe

Stop! Think before you dig!

#bebrightstaysafe

@UKPowerNetworks /ukpowernetworks

National power cut helpline

POWER CUT? CALL 105

Or call us
24 hours a day on
0800 31 63 105

what3words

To report broken or damaged electrical equipment or in an emergency call 0800 31 63 105 or 105 and use what3words to help us locate you faster.

Linesearch before Udig

For safety advice about overhead power lines, disconnections and general enquiries, go to:
www.ukpowernetworks.co.uk

To request your **FREE** vehicle cab stickers visit the safety pages at **www.ukpowernetworks.co.uk**

If you are unsure who your network operator is then please visit
www.energynetworks.org

UK Power Networks
Delivering your electricity

Network Records NetMAP Symbols Booklet - South East England

Version 1.2

Released October 2010

Always check with your local Network Records office or the UK Power Networks server to ensure that you are using the most up to date copy of this booklet - Tel: 08000 565866

Index:-

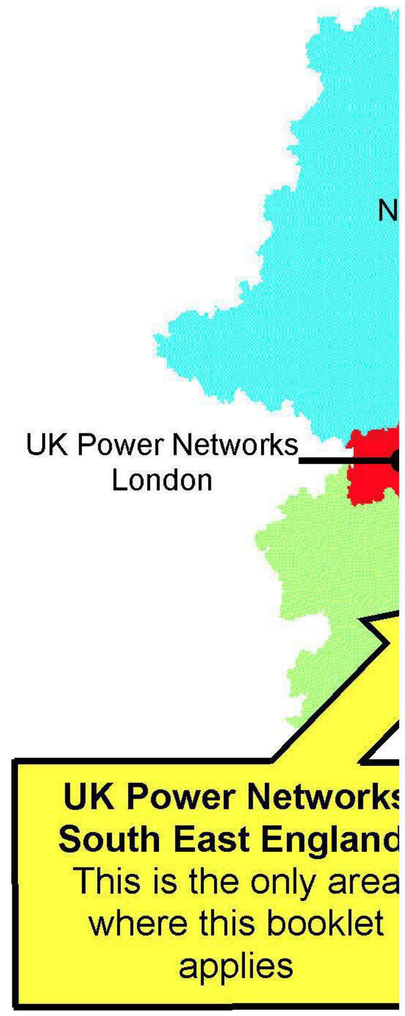
Guidance notes.

Important notice:
If you do not understand the NetMAP record that you are using, please contact the UK Power Networks Network Records team for guidance on
Tel: 08000 565866.

- The position of apparatus shown on NetMAP is believed to be correct, but the original landmarks may have altered since the apparatus was installed.
- It must be assumed that there is at least one service to each property, lamp column, street sign etc.
- Third party cables are not usually shown.
- When viewed in black and white, the line-style indicates the voltage.
- All LV cables are 4 core and all HV cables are 3 core – unless otherwise stated.
- All cables are copper – unless otherwise stated.

Plan Provision Team
and CableWatch
Fore Hamlet
Ipswich
Suffolk IP3 8AA
Tel: 08000 565866

The area cove



1:500 (& 1:1250) view

Scenery

NetMAP system	Description
	Secondary buildings and fence lines
	Building line
	Kerb line
	UK Power Networks / SPN licence boundary (not visible unless selected)

Scenery for UK Power N

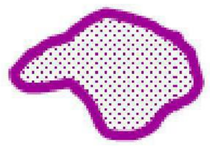
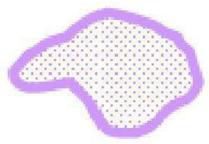
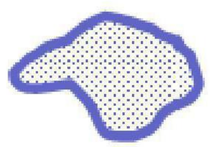
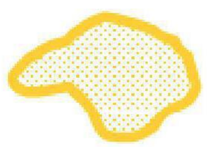
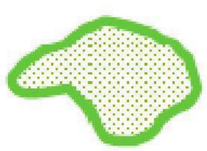
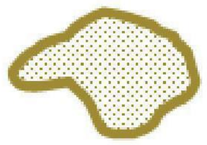
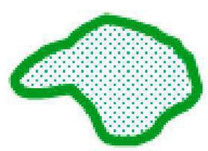
NetMAP system

Inset Network – Contact xxxx IDNO for further information

Note: Pipelines are only viewable on NetMAP by not carry out any excavation without consent from products pipeline route in the general vicinity - cc contact numbers can also be found on t

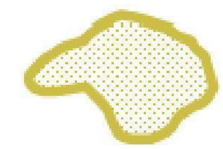
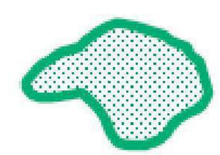
section con

Scenery for UK Power Networks use only - boxed in red

NetMAP system	Description
	Historical - Scheduled Monuments (only visible to UK Power Networks and their immediate contractors)
	Historical - Parks and Gardens (only visible to UK Power Networks and their immediate contractors)
	Historical - Areas of Archaeological Potential (AAP) (only visible to UK Power Networks and their Immediate contractors)
	Nature - Ramsar Wetlands of International Importance (only visible to UK Power Networks and their immediate contractors)
	Nature - Special Area of Conservation (SAC) (only visible to UK Power Networks and their immediate contractors)
	Nature - Special Protected Area (SPA) (only visible to UK Power Networks and their immediate contractors)
	Nature - Site of Special and Scientific Interest (SSSI) (only visible to UK Power Networks and their immediate contractors)

section continued on next page

Scenery for UK Power N

NetMAP system



Primary distribution line route (1:500 view)

NetMAP system	Description
	275–400kV National Grid route
	132kV cable route
	33kV cable route

Approximate routes only – see seperate record

Secondary distri

NetMAP system
Pilot
2c SU pl

Secondary distribution cable terminology (1:500 view)

HV underground

sta	PILCSTA (paper insulated lead covered steel tape armour)
(no text)	PILCSWA (paper insulated lead covered steel wire armour)
XLPE	XLPE (cross linked polyethylene) insulation
bcs	CAS (corrugated aluminium sheath) belted construction
scs	CAS (corrugated aluminium sheath) with screened cores
ua	PILC (paper insulated lead covered) unarmoured
c/c	Concentric cores
Poly	Poly (polyethylene) insulation
BOTES	BOTES – Board of Trade earth screen
of	Oil filled
33 kV design	Constructed to 33 kV specification
ax	Triplex with aluminium conductor
cx	Triplex with copper conductor

HV overhead

(no text)	Bare open wire
pvc	Open wire PVC covered
cat	ABC (aerial bundled or bunched conductor) with supporting strain wire
+ew	Open wire with extra earth conductor
ccc	Compact covered conductor

Overhead line materials

sca	Steel cored aluminium
cc	Cadmium copper
st	Steel
sil	Silmalec
ccs	Copper covered steel
cpl	Compactal

section continued on next page

Secondary distribution (

LV undergrou

W	Waveform
We	Waveform with sepa
H	Hybrid – copper ne
He	Hybrid with seperat
ua	PILC (paper insulat
(no text)	PILC (paper insulat
XLPE	XLPE (cross linked
DISTRI	PISTA (paper insula
c/c	Concentric cores
s/c	Split concentric wit
CONSAC	Paper insulated alu
vb	Vulcanised bitumen,
Capothene	Capothene core ins
tby	Tape braid and yar
swa	PILSWA (paper insu
sac	PILSTA (paper insul
Solidal	4 sector SAC with
LSF	Low smoke and fu
Trough	Cable laid in filled

LV overhead

(no text)	Bare open wire
ABC	Aerial bundled (or t
cat	ABC (aerial bundled
pvc	PVC covered open
c/c	Concentric cores
H	Hybrid – copper ne
ue	Under eaves – hes
vir	Vulcanised India rub

section conti

Secondary distribution cable terminology continued

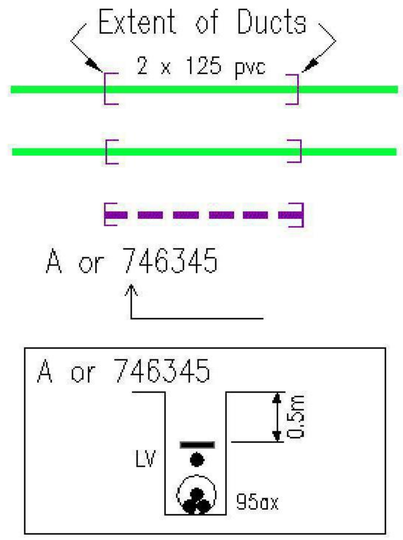
(1:500 view)

Various annotation

.1	Cable size (sq. inches)
185	Cable size (sq. millimetres)
a	Aluminium
ITC	Instrument traced cable or ITC - cable traced electronically using Cable Avoidance Tool (CAT) or similar

Cable c

NetMAP system



Duc

(no text)
pvc
st
asb
fbr
wi
cp
t/e

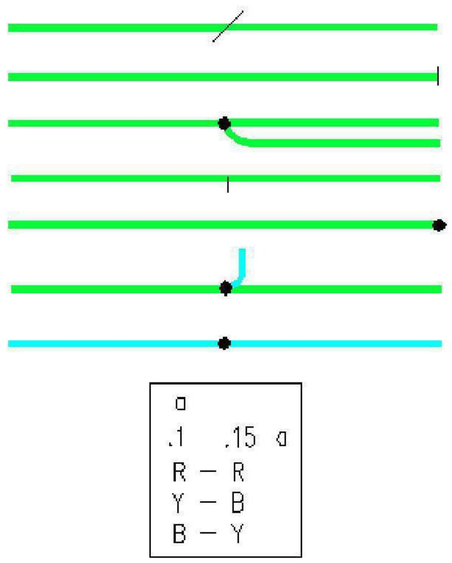
Poles (1:500 view)

NetMAP system	Description
(S) 999999	Section pole Pole number (unique)
	Single leg
	H pole
	3 member
	4 member
	Strut
	Pole support (stay)
	Flying stay
	Tower 33kV to 400kV

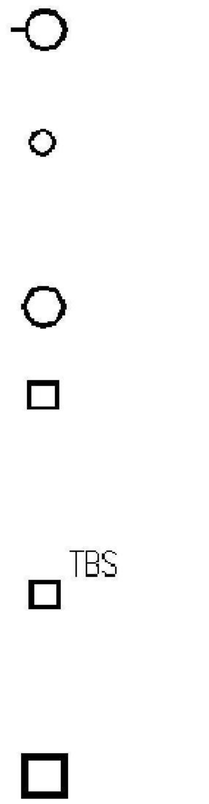
EHV, HV an

NetMAP system
Note: EHV and HV sites are iden
SITE NAME 33/11kV 003432
SITE NAME pmt 525123
SITE NAME 523445
V
b
Note: For LV linkir

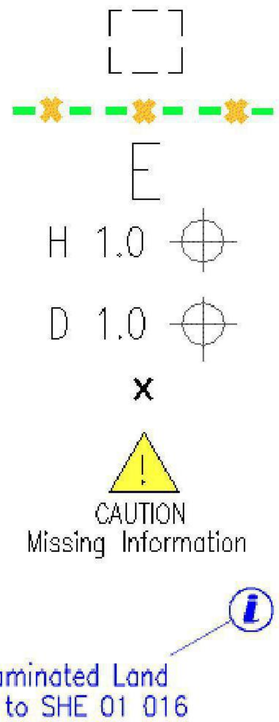
Joints (1:500 view)

NetMAP system	Description
	Straight (same for HV) Pot end (same for HV) Branch (same for HV) Sleeve repair Capped end Service to LV main Under eaves service Jointing phase drawing

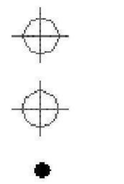
Street fu

NetMAP system


Miscellaneous (1:500 view)

NetMAP system	Description
	Underground chamber or draw pit Earth conductor Earth pin Height marker Depth marker Supply point Missing data in or near this location Contaminated land reference

Connec

NetMAP system


Abbreviations (1:500 view)

NetMAP system	Description
NR	No record
SU	Size unknown
AB	Abandoned
(M)	PME available
VO5	Year LV linking verified
MS	Milestone
MP	Marker post
pmt	Pole mounted transformer
pl	Public lighting
TBS	Temporary builder's supply
TCB	Telephone call box
CET	Cable electronically traced
IT	Instrument traced (same as CET)
CAT	Cable avoidance tool (same as CET)
+sl	Street lighting
+sw	Switch wire
2c	2 core
PESL	Public Electricity Supply License
Added	Supplied by SPN
Excluded	Not supplied by SPN
IIP	Assumed open point
VSxxxx	Vacant site
CB	Callender box

Cable ph

Old core colours	Sh
Neutral	Neutral
Red	R
Yellow	Y
Blue	B

Note:- Scott

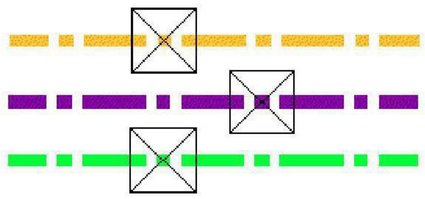
Operational status colours (1:500 view)

PROPOSAL ——— Symbols and cables appear in ORANGE
OUT OF SERVICE ——— Cable and joints appear in BLACK
ABANDONED ——— Cables and joints appear in GREY

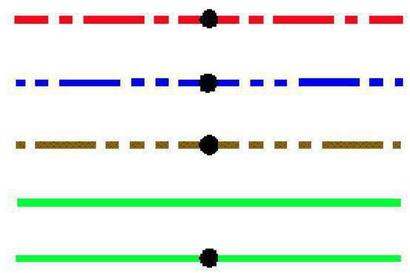
1:2500 view
Networks use

1. No underground HV cab
2. Poles and joint details
3. For cable/line informati

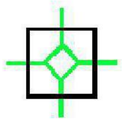
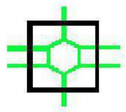
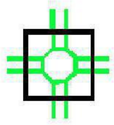
Primary distribution line route (1:2500 view)

NetMAP system	Description
	275–400kV National Grid route 132kV cable route 33kV cable route

Secondary distrik

NetMAP system


Primary and secondary sites (1:2500 view)

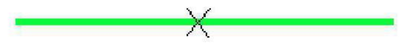
NetMAP system	Description
Note: EHV and HV sites are identified by a unique 6 digit number (SPENS)	
5.0 3Ph SITE NAME 521232	Ground mounted substation showing capacity, phase, name and SPENS number
0.16 1Ph • SITE NAME pmt 522154	Pole mounted substation showing capacity, phase, name and SPENS number
SITE NAME 008590	Primary substation showing name and SPENS number (no site shown)
	2 way link box
	4 way link box
4Jxxxx	Link box identifier
	4 way link box without busbar
	6 way link box without busbar
	8 way link box without busbar

section continued on next page

Primary and secondar

NetMAP system

V
b


E

Switch types (1:2500 view)

NetMAP system	Description
ABSD	Air brake switch disconnector
A/R	Auto recloser
A/S	Sectionaliser
FUSE	Fuse
S/D	Surge diverter
PF	Pathfinder
ASL	Automatic sectionalising links
PMR	Pole mounted recloser
PMS	Pole mounted sectionaliser
GVR	Gas vacuum recloser

1:10000 vie
Networks us

1. No EHV cables/overhead l
2. For congested areas print
3. HV site used instead of b
   purposes. The site is not

Secondary distribution cables (1:10000 view)

NetMAP system	Description
	11kV underground cable
	6.6kV underground cable
	<6.6kV underground cable
	11kV overhead line
	6.6kV overhead line
	<6.6kV overhead line

Primary and secc

NetMAP system
Note: EHV and HV sites are identif
SITE NAME 008590
SITE NAME 521234
SITE NAME 524514
SITE NAME 523634
SITE NAME pmt 527522
SITE NAME pmt 525743
SITE NAME pmt 526543
SITE NAME 527238