# Can you DIG it?

We bring the gas to homes and businesses across Wales and the south west of England. We invest money, time and effort every year to make sure our pipelines are protected – but the biggest danger to our network is you.



## D is for Dial

**Digging can be dangerous. Hit a gas pipe and you might cause a gas leak, a fire or explosion.**

So phone us first on **029 2027 8912** or email **dig@wwutilities.co.uk**

- You can find out where our pipes are.
- You need to give us 10 working days' notice before you start working.



## I is for Investigate

**It's the only way to stay safe**

- Before you start work, you must get a copy of our up-to-date gas plans and General Conditions and keep them with you on site.
- Use our online mapping service to find the mains pipes under your land.
- Working near a medium-, or intermediate- or high-pressure gas pipe? You might need a site visit – call us so we can arrange it.
- Plan ahead – we need at least 10 days' notice for a site visit.
- You'll also need our publication 'SSW22 Safe working in the vicinity of high-pressure pipelines and associated installations'.
- Remember, you can't work on a Wales & West Utilities wayleave or easement (land which we have rights over to maintain our gas network) without written permission.
- And you can't work near or move heavy equipment over any gas pipeline until all our conditions have been met and we agree your method of working.
- Watch the video on our website to find out more.

## G is for Go ahead

- Make sure you have our up-to-date gas plans on site.
- Need extra advice? Call our Plant Protection team on **029 2027 8912** or email **dig@wwutilities.co.uk**
- Use cable- and pipe-locating devices.
- Use safe digging practices, taking every precaution to avoid damaging gas pipes, damaging yourself and damaging your bank balance. You will be billed for any costs if something goes wrong.
- If in doubt, phone us again. We're happy to help.

We need **10 days'** notice



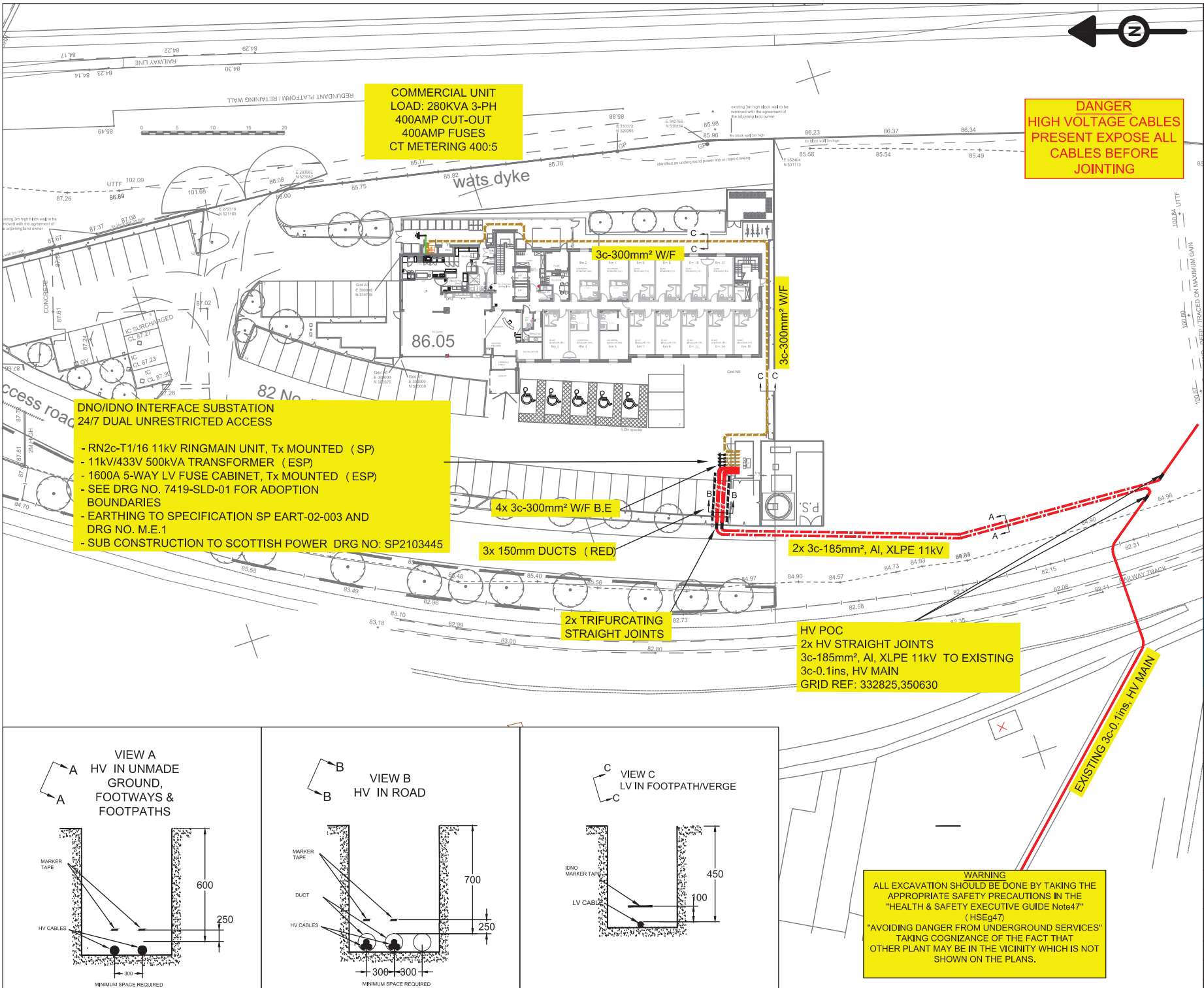


## Smell gas?

**Our Gas Emergency Service is on call 24 hours a day, seven days a week, 365 days a year.**

If you cause a gas leak, or think the network might be leaking, call the Gas Emergency Service immediately on **0800 111 999**.

- Get everyone away from the leak.
- Ask everyone in nearby buildings to leave until we're sure it's safe.
- Put out all naked flames and other sources of ignition and make sure no one smokes within 15 metres of the leak.
- Don't try to fix the leak by filling the hole, as gas may enter buildings.
- Don't try to operate any valves.
- Don't let anyone go near the leak.
- Help our engineers, the police or fire services if they ask.







WARNING
ALL EXCAVATION SHOULD BE DONE BY TAKING THE APPROPRIATE SAFETY PRECAUTIONS IN THE "HEALTH & SAFETY EXECUTIVE GUIDE Note47" ( HSEg47)
"AVOIDING DANGER FROM UNDERGROUND SERVICES"
TAKING COGNIZANCE OF THE FACT THAT OTHER PLANT MAY BE IN THE VICINITY WHICH IS NOT SHOWN ON THE PLANS.

| | | | |
|---|---|---|---|
| | | | |
| | | | |
| A | FOR APPROVAL | 23/05/13 | PA |
| REV | REVISION NOTES | DATE | ENG. |

## DRAWING KEY

| | | |
|---|---|---|
| SOLID LINE - EXISTING COLOUR DEFINES VOLTAGE | | |
| DASHED LINE - PROPOSED COLOUR DEFINES VOLTAGE | | |
| PROPOSED 11kV MAIN CABLING. | RED | |
| PROPOSED 6.6kV MAINS CABLING. | BLUE | |
| PROPOSED LV MAINS CABLING. | BROWN | |
| PROPOSED LV SERVICE CABLING. | BROWN | |
| PROPOSED CABLE DUCT. | | |
| PROPOSED EARTHING CABLE. | | |
| PROPOSED EARTHING ROD ( S) . | | |
| B.J./ S.J. / B.E. ( JOINT | | |
| PHASE ALLOCATION. | | L1 L2 L3 |
| METER POSITIONS. | | M |

NOTE: UNLESS OTHERWISE STATED; ALL SINGLE PHASE DOMESTIC SERVICES TO BE 2c,35,SAC,PC AND ALL DOMESTIC ELECTRICITY METERS TO BE INSTALLED IN EXTERNAL METER BOXES. CONTRACTOR TO INSTALL CABLE MARKER TAPE.

***SERVICE ROUTES***

**ALL SERVICE ROUTES ARE INDICATIVE ONLY AND MUST BE CONFIRMED ON SITE BY THE INSTALLATION CONTRACTORS REPRESENTATIVE. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO ENSURE THAT ALL SERVICE ROUTES ARE WITHIN THE DEMISE OF THE PROPERTY BEING SUPPLIED AND THE EXACT LOCATION OF DUCTS ARE CLEARLY IDENTIFIED.**

****Planning Drawing Only****

**Obtain up-to-date utility records from asset owner before commencing work.**

The details supplied on this drawing are intended to be used for information only and are not representative of any binding or contractual agreement between R & D Network Design and any other parties involved. The positions of existing mains is given for guidance only and, as such, no liability can be accepted by R & D Network Design Ltd for any damage caused to, nor any injury sustained, as a result of interference with such apparatus. Before any onsite works commence an up to date copy of the relevant utilities records must be obtained.

R & D Network Design Ltd.
Blue Pit Mill
Queensway
Rochdale
OL11 2YW

| | | | |
|---|---|---|---|
| Client | CROWN | Client Ref | CU1357 |
| Site Address | Premier Inn, Mold Road, Wrexham | | |
| Title | **Site Plan with Cable Routes** | | |
| Drawn By | PA | Date | 23/05/2013 |
| Checked By | DK | Date | 23/05/2013 |
| Approved By | SD | Date | 23/05/2013 |
| Scale | 1:500 @ A3 | | |
| Revision | A | | |
| Drawing No | 7419/SP/01 | | |

# PRECAUTIONS TO BE TAKEN WHEN CARRYING OUT WORK IN THE VICINITY OF ELECTRICITY CABLES

## ADVICE TO SITE PERSONNEL

**MANAGEMENT NOTE**

Please ensure that a copy of this note is read by your site management and to your site operatives.

Early consultation with ESP Utilities Group prior to excavation is recommended to obtain the location of plant and precautions to be taken when working nearby.

This Guidance Note should be read in conjunction with the Health and Safety Executive guidance HSG47 "Avoiding danger from underground services".

### 1.0 Introduction

This procedure should be read in conjunction with the ESP Electricity Distribution Safety Rules and other relevant procedures.
The object of this procedure is:

a) To lay down the rules for the location of cable before work is started.

b) To specify the safe working procedure to be adopted by persons who have to work on or in the vicinity of cables.

### 2.0 Reference

ESP Electricity G81 – Design and Planning
ESP Electricity G81 – Installation and Records
National Joint Utilities Group (NJUG) Guidance Notes
Avoiding danger from underground services HSG47 HSE Advice Booklet.

### 3.0 Work

3.1 All cables and apparatus to which the cables are connected shall be treated as being live, until they have been proved dead and all points of isolation have been establish and controlled.

3.2 All work carried out under this procedure shall also be carried out in strict accordance with the ESP Electricity Distribution Safety Rules and other relevant procedures.

3.3 For the purpose of this procedure:

a) Work on a cable includes the intentional cutting or removal of its Sheath or Armour, cutting of its core(s) or conductor(s) and the removal of a spiking gun.

b) Work in the vicinity of a cable includes digging or any activity carried out at any work location where cables are or may be present, whether or not for the specific purpose of preparation for work on a cable.

### 4.0 Cable Locating Devices

4.1 An approved cable locating device is to be used on every occasion before any surface is removed or any digging is started. It must also be used during the course of any digging work.

4.2 Cable location devices provide information on the position of cables. They must not be used as the only means of cable location.

4.3 Cable locating devices must be regularly checked for correct operation.

All persons using cable locating devices must be adequately trained in their use and must be Competent Persons.

### 5.0 Location of Cables

5.1 The depth of underground cables varies greatly. It is essential that a site specific risk assessment is undertaken for the proposed work you are planning this must include obtaining an up-to-date map of the electricity cables in the area and to make use of it. The electricity cable records must be checked before any work is started. Changes in surface level or reference points, and work carried out by other people may affect the reliability of these records. Anybody excavating must be told of these possibilities.

5.2 Before the start of any excavation work, a cable locating device shall be used to establish the run of live cables. Reasonable steps should be taken to establish the runs of cables both along and across the length of the intended area of digging. The cable avoidance tool shall be used together with mains records and where provided, service records.

5.3 All cable runs either confirmed by use of the cable locating device or indicated on the mains records must be marked out on the surface using a waterproof marker. Marked cable runs must be extended 300mm beyond either end or side of the intended digging area, and must stay visible while the digging is going on. The trial hole dig method can be used to identify the run of cables using hand dig tools only.

**6.0 Precautions to be Taken while Working in Vicinity of Cables**

6.1 Work in the vicinity of cables must be carried out as if the cables are live and all excavation work must be personally supervised by a Competent Person. All persons shall wear a minimum of safety footwear, Safety Glasses, hard hat, Task Specific Gloves flame retardant overalls.

6.2 Approved hand tools should always be used in preference to power tools in the vicinity of cables, unless site conditions make this impracticable. Spades should always be used in preference to forks. Extreme care must always be taken when using a fork or pick. Forks must be of approved type with shortened chisel ended tines. Spades must have sharp corners of the blade rounded. The selection of a fork or pick will be assessed on a Task Specific Risk Assessment.

6.3 A proprietary air digging tool, which removes oil with a high-velocity jet of air, can be used to expose buried services without damage to the service. However, it will not penetrate asphalt, concrete or frozen ground. Also precautions need to be taken that will prevent injury to the operator and members of the public from ejected soil and other materials.

6.4 When site conditions require the use of hand held power tools they must be fitted with a short bit. The following method of work must be used:

a) Using all the information provided, together with an approved cable locating device, the line of all know cables must be marked out at least 300mm past the hole that will be dug using waterproof marker.

b) Encroachment lines must be drawn 300mm parallel to and away from the outer and innermost cable marker lines. And as in (a) above these must be drawn to extend at least 300mm beyond the edge of the hole that will be dug.

c) Hand held power tools must not be used below ground level in between the encroachment lines. Hand tools must be used for progressive and careful undermining from outside the encroachment lines towards the cable(s). Hand power tools must only be used to break up any hard surface, keeping pace with, but not going past the undermining. Extreme care must, in particular, be exercised when using power tools above cables already exposed by undermining. The use of power tools must stop if at any time the cutting rate quickens, indicating softer ground. At all times, attention must be paid to the cable run marker lines outside the edges of the holes.

d) The safe digging procedure in (c) above must be followed until all cable(s) required for work or for identification have been located.

e) If all recorded or detected cables inside the digging area have been located then hand held power tools may be used below ground level to break up concrete or similar structures, but even then only when site conditions render the use of hand tools impractical.

6.5 During excavation, full use must be made of cable locating devices which must be used to assist in establishing the exact location of live cables.

6.6 Where exposed cables are likely to be damaged in any way they shall be adequately protected and/or supported. Where in the opinion of the person in charge on site it is appropriate, warning notices must be attached to cables e.g. 'live cable exposed above ground level' or 'live coiled cables'.

6.7 Irrespective of the color of the electricity cable it shall be considered as being in a 'live' status unless it has been confirmed and proven that the cable has been physically isolated or turned off.

**If damage is caused or suspected the following action should be taken at once:**

- Remove all personnel from the immediate vicinity
- Contact ESP Electricity 01372 587500 or out of hours Emergency contact Number 0800 731 6945
- Prevent any approach by the public.
- Assist electricity personnel, Police or Fire Service as requested.

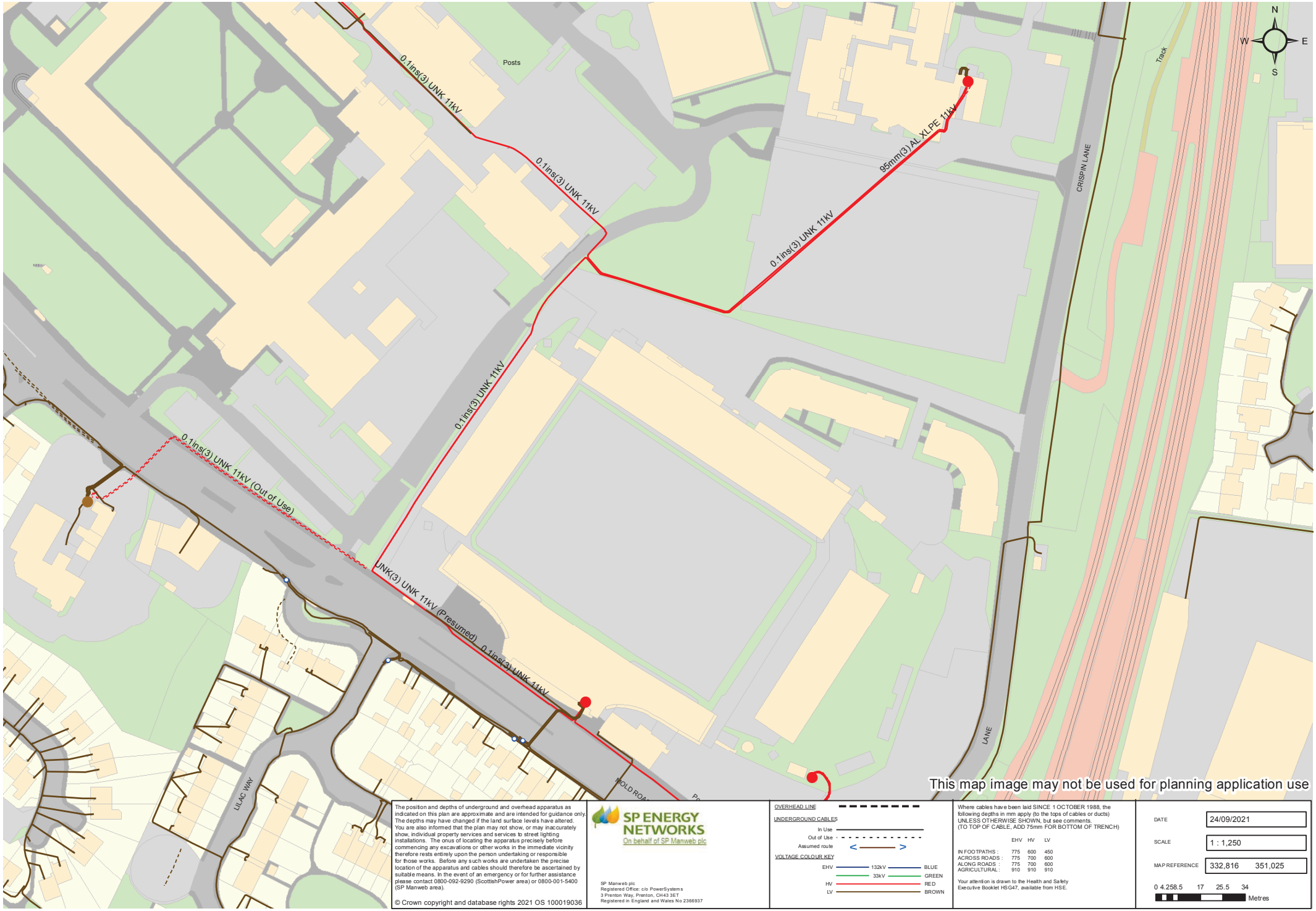
**REMEMBER – IF IN DOUBT; SEEK ADVICE FROM ESP Utilities Group.**

**ESP Utilities Group can be contacted at:**

**Office Address:** Bluebird House, Mole Business Park, Leatherhead, Surrey, KT22 7BA

**Office Tel:** 01372 587 500; **Fax:** 01372 377996

# Electric




The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0800-092-9290 (ScottishPower area) or 0800-001-5400 (SP Manweb area).

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SP ENERGY NETWORKS
On behalf of SP Manweb plc

SP Manweb plc
Registered Office: c/o PowerSystems
3 Prenton Way, Prenton, CH43 3ET
Registered in England and Wales No 2366937

OVERHEAD LINE

UNDERGROUND CABLES

In Use

Out of Use

Assumed route

VOLTAGE COLOUR KEY

| | | | |
|---|---|---|---|
| EHV | 132kV | BLUE |
| | 33kV | GREEN |
| HV | | RED |
| LV | | BROWN |

Where cables have been laid SINCE 1 OCTOBER 1988, the following depths in mm apply (to the tops of cables or ducts) UNLESS OTHERWISE SHOWN, but see comments. (TO TOP OF CABLE, ADD 75mm FOR BOTTOM OF TRENCH)

| | EHV | HV | LV |
|---|---|---|---|
| IN FOOTPATHS : | 775 | 600 | 450 |
| ACROSS ROADS : | 775 | 700 | 600 |
| ALONG ROADS : | 775 | 700 | 600 |
| AGRICULTURAL : | 910 | 910 | 910 |

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

DATE 24/09/2021

SCALE 1 : 1,250

MAP REFERENCE 332,816 351,025

0 4.258.5 17 25.5 34 Metres




This map image may not be used for planning application use

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OVERHEAD LINE

UNDERGROUND CABLES

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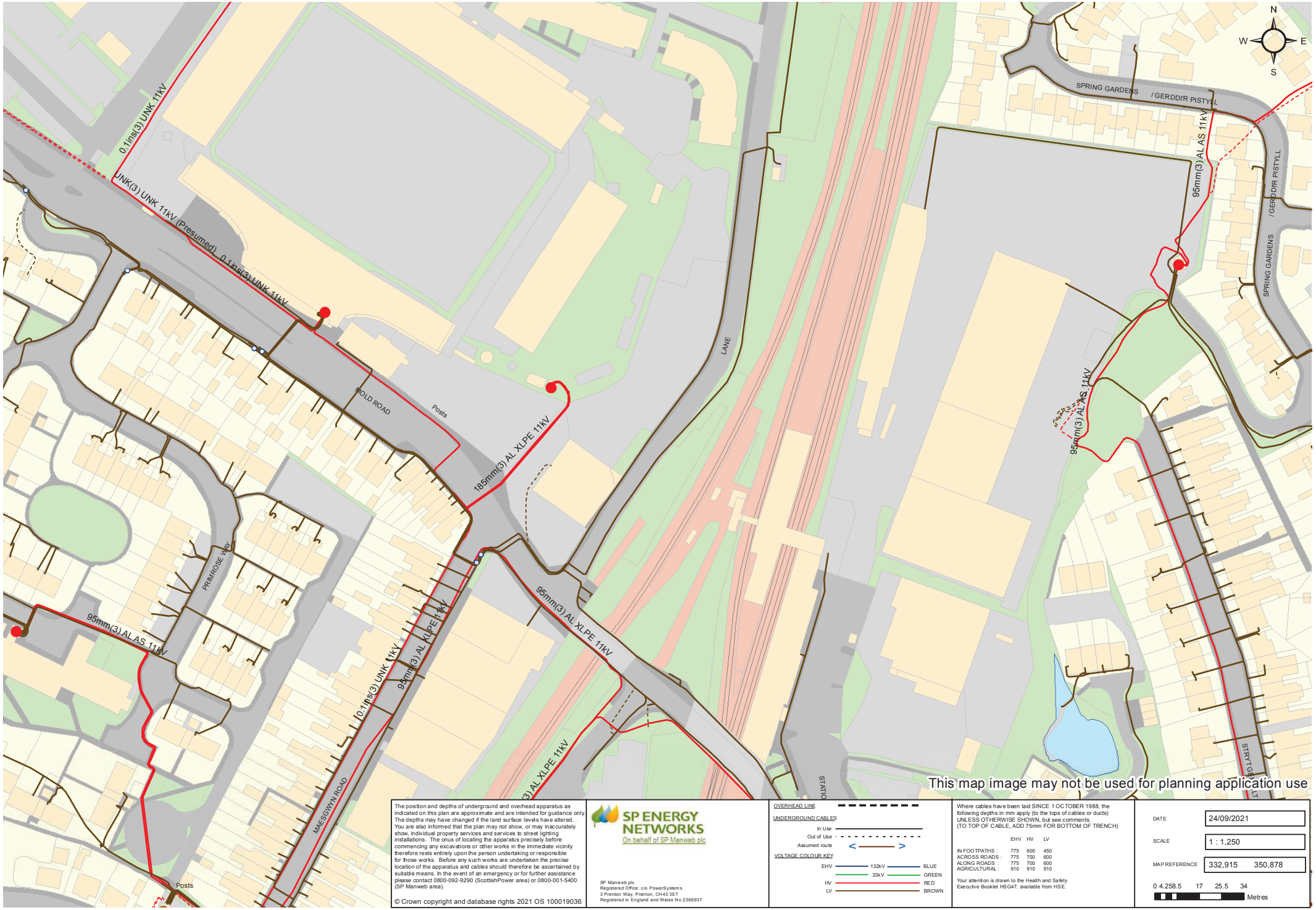
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| | 910 | 910 | 910 |

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| | |
|---|---|
| DATE | 24/09/2021 |
| SCALE | 1 : 1,250 |
| MAP REF. | 332,857<br>350,996 |

0 27.5 5.5 11 16.5 22 Metres




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OVERHEAD LINE

UNDERGROUND CABLES
In Use
Out of Use
Assumed route

VOLTAGE COLOUR KEY

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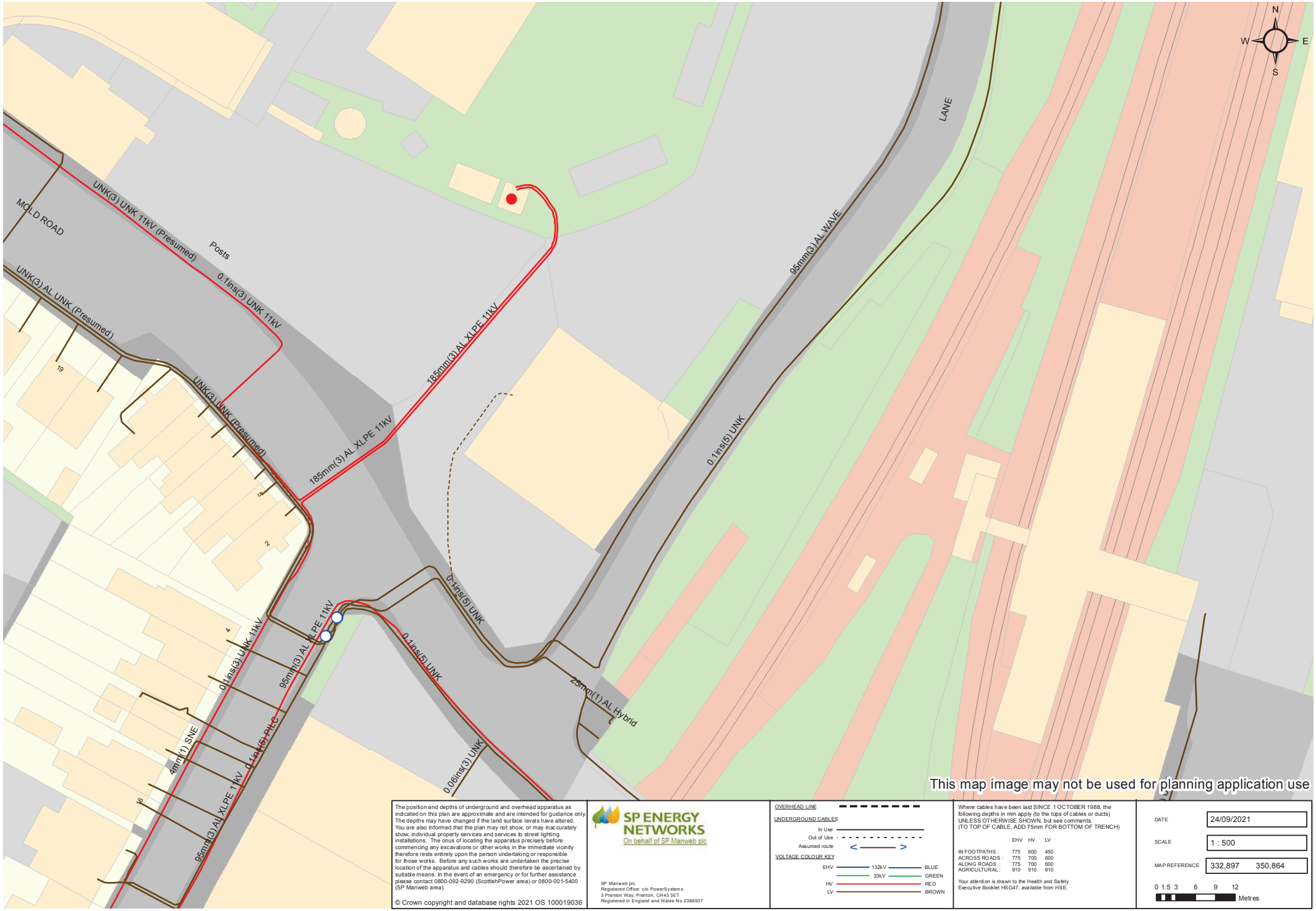
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DATE 24/09/2021

SCALE 1 : 1,250

MAP REFERENCE 332,915 350,878

0 4.258.5 17 25.5 34 Metres




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In Use
Out of Use
Assumed route

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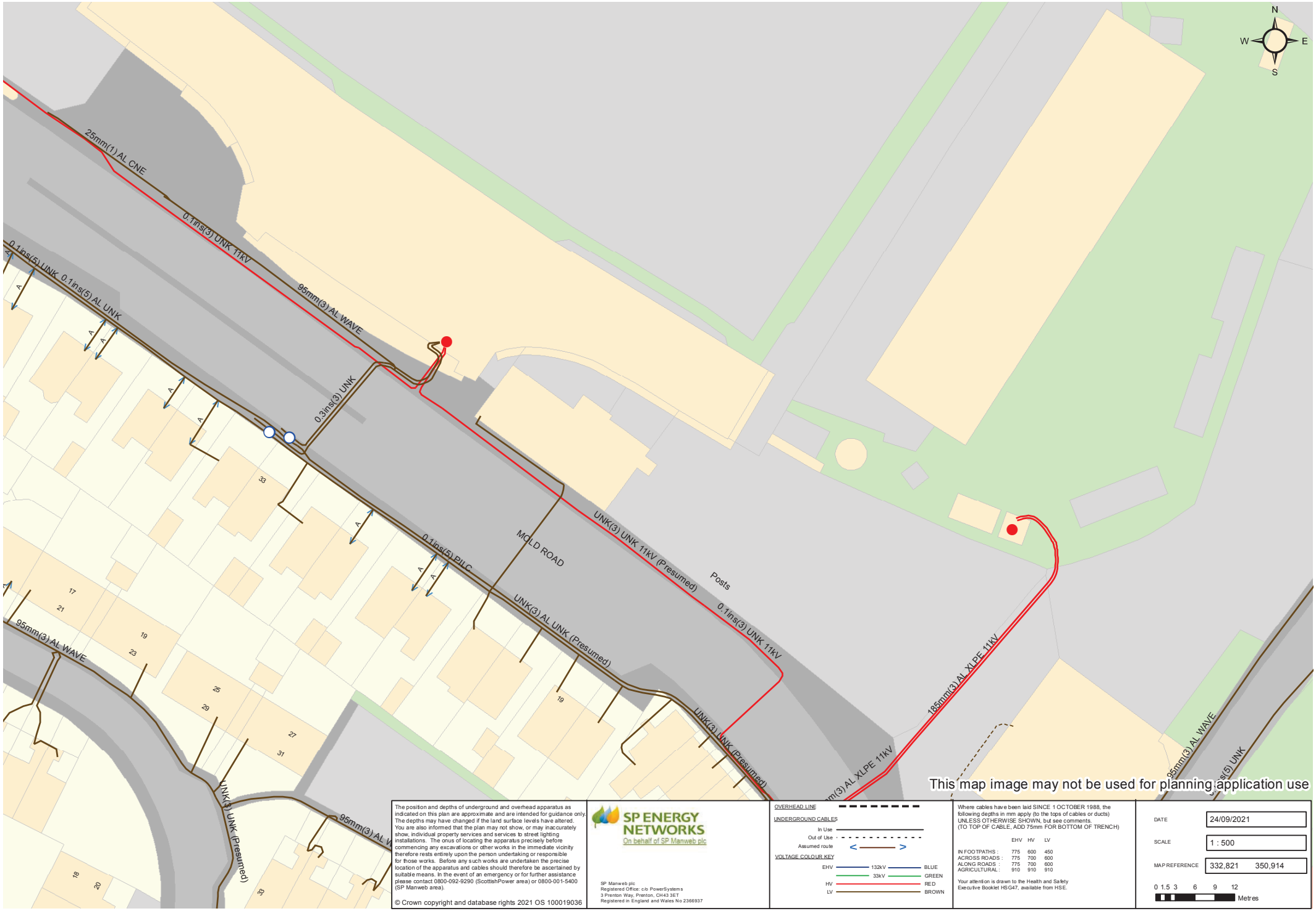
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DATE 24/09/2021

SCALE 1 : 500

MAP REFERENCE 332,897 350,864

0 1.5 3 6 9 12 Metres




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OVERHEAD LINE

UNDERGROUND CABLES
In Use
Out of Use
Assumed route

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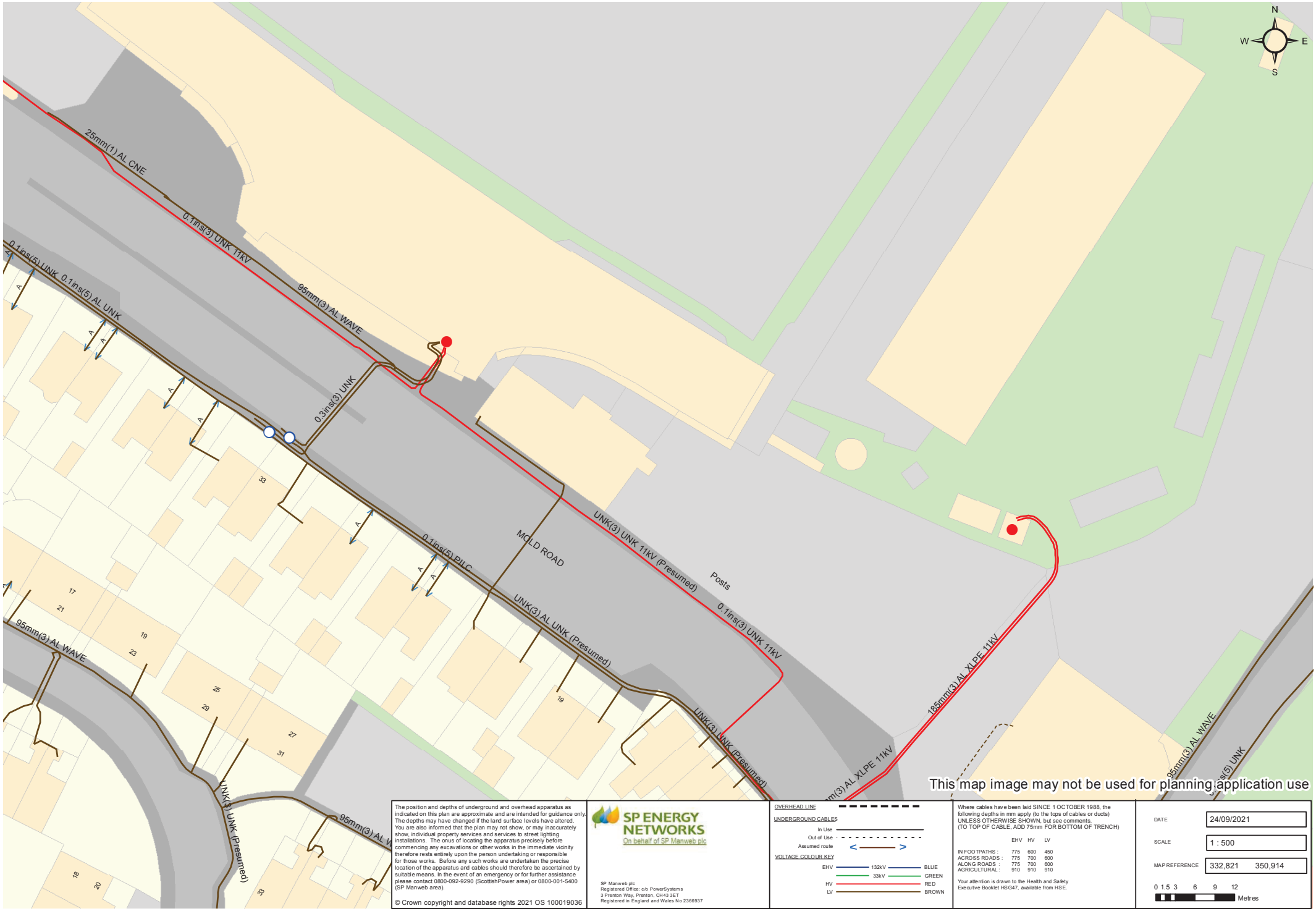
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DATE 24/09/2021

SCALE 1 : 500

MAP REFERENCE 332,821 350,914

0 1.5 3 6 9 12 Metres




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OVERHEAD LINE

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Assumed route

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MAP REFERENCE 332,821 350,914

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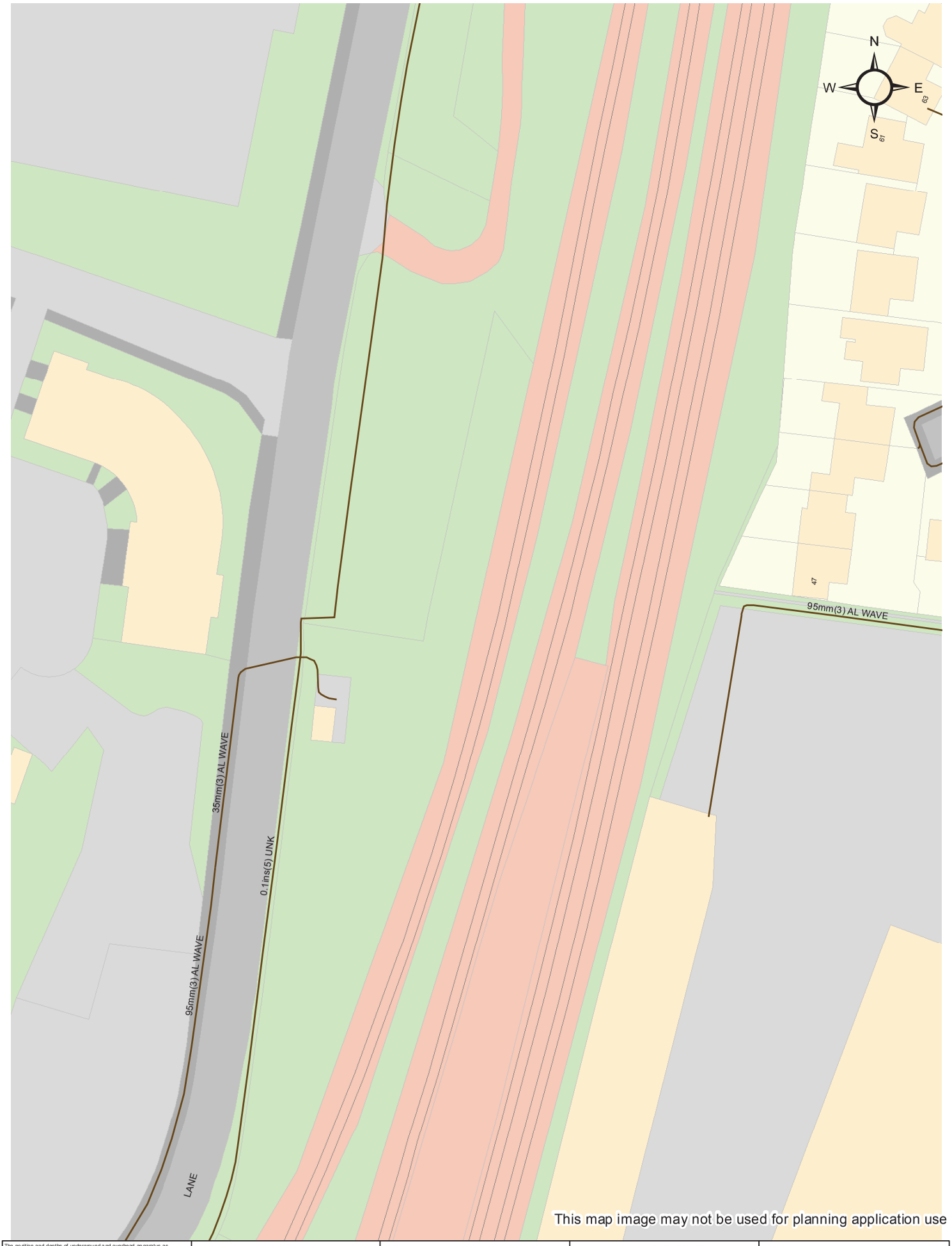
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|---|---|
| DATE | 24/09/2021 |
| SCALE | 1 : 500 |
| MAP REFERENCE | 332,823 351,068 |

0 1.5 3 6 9 12
Metres




This map image may not be used for planning application use

The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0800-092-9290 (ScottishPower area) or 0800-001-5400 (SP Manweb area).

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OS 100019036.

SP ENERGY NETWORKS
On behalf of SP Manweb plc

SP Manweb plc
Registered Office: c/o PowerSystems
3 Prenton Way, Prenton, CH43 3ET
Registered in England and Wales No 2366937

OVERHEAD LINE

UNDERGROUND CABLES

In Use

Out of Use

Assumed route

VOLTAGE COLOUR KEY

| | | |
|---|---|---|
| EHV | 132kV | BLUE |
| | 33kV | GREEN |
| HV | | RED |
| LV | | BROWN |

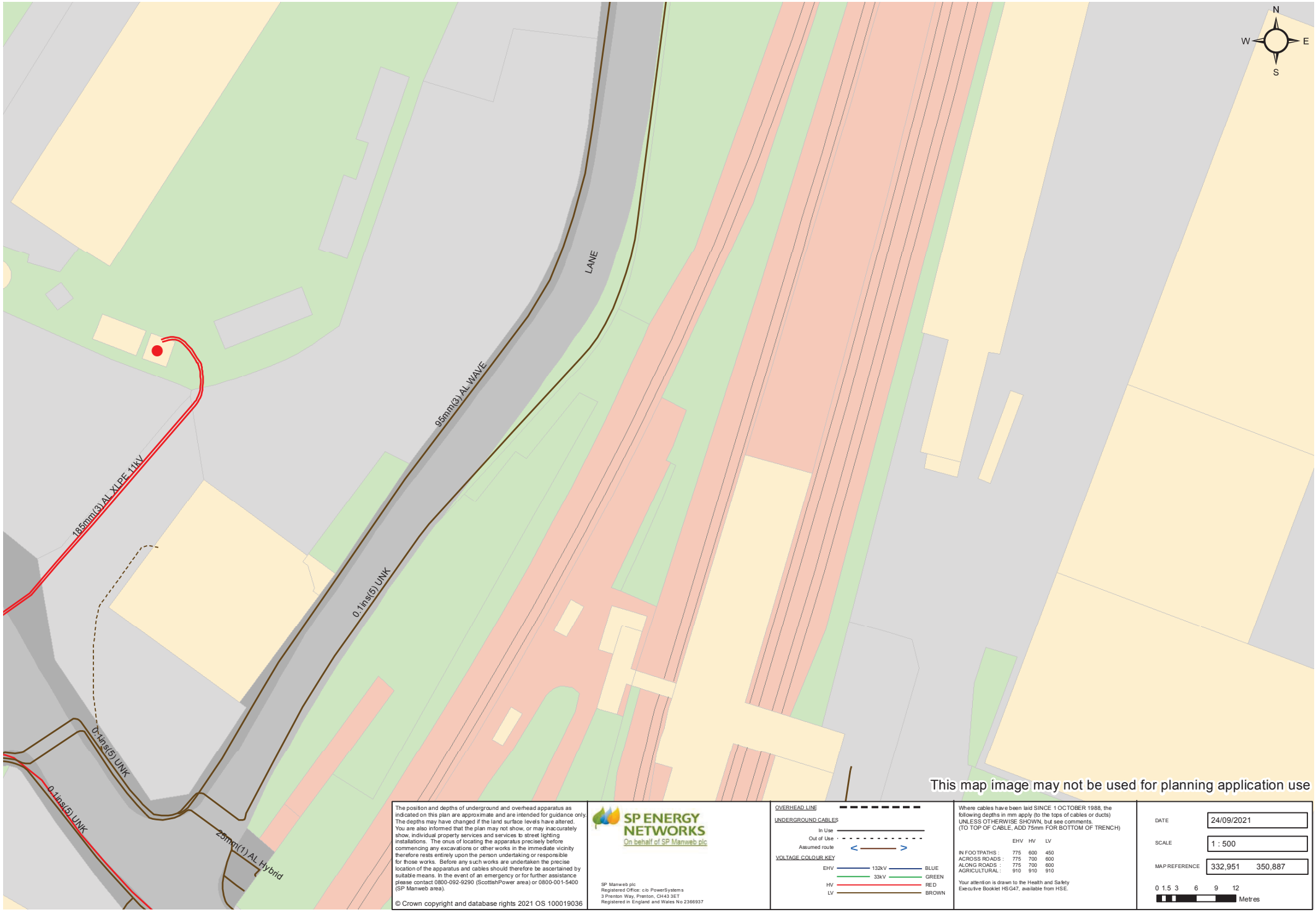
Where cables have been laid SINCE 1 OCTOBER 1988, the following depths in mm apply (to the tops of cables or ducts) UNLESS OTHERWISE SHOWN, but see comments. (TO TOP OF CABLE, ADD 75mm FOR BOTTOM OF TRENCH)

| | EHV | HV | LV |
|---|---|---|---|
| IN FOOTPATHS : | 775 | 600 | 450 |
| ACROSS ROADS : | 775 | 700 | 600 |
| ALONG ROADS : | 775 | 700 | 600 |
| AGRICULTURAL : | 910 | 910 | 910 |

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

| | |
|---|---|
| DATE | 24/09/2021 |
| SCALE | 1 : 500 |
| MAP REFERENCE | 332,982 350,992 |

0 1.5 3 6 9 12
Metres




This map image may not be used for planning application use

The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0800-092-9290 (ScottishPower area) or 0800-001-5400 (SP Manweb area).

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On behalf of SP Manweb plc

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Registered Office: c/o PowerSystems
3 Prenton Way, Prenton, CH43 3ET
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OVERHEAD LINE

UNDERGROUND CABLES
In Use
Out of Use
Assumed route

VOLTAGE COLOUR KEY

| | | | |
|---|---|---|---|
| EHV | 132kV | BLUE | |
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| HV | | RED | |
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| | EHV | HV | LV |
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| ALONG ROADS : | 775 | 700 | 600 |
| AGRICULTURAL : | 910 | 910 | 910 |

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

DATE 24/09/2021

SCALE 1 : 500

MAP REFERENCE 332,951 350,887

0 1.5 3 6 9 12 Metres




# UTILITY MAP VIEWER (UMV)

---

# SYMBOLS AND SCALES
# VERSION 3.1

**Author: Louise Edwards, Steve Holmes, Sheryl Wilkinson, Naomi Kishigami**
**Date: 07th May 2015**

# Contents

**Introduction** ..... **3**
**GIS Symbols and Scales** ..... **4**
**Overhead Lines, Underground Cables and Non Power Cables** ..... **12**
**GND Symbols and Scales** ..... **13**

## Introduction

The GIS application suite comprising UMV, ArcView and ArcMap is in everyday use throughout the company, as well as being available to scores of third party companies throughout the UK.

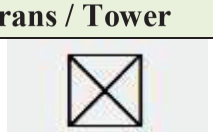
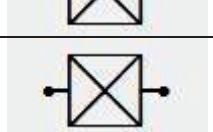
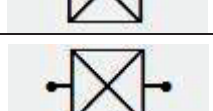
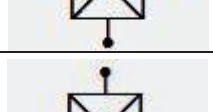
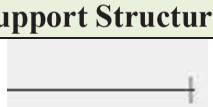
Within the pages of this document, a brief explanation for each asset type modelled within GIS is given. Said explanation comprises the asset name, its symbology, its whereabouts within the layer control environment and finally the scale range at which they become visible.

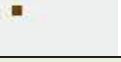
Knowing at which scales assets are designed to be visible at may well solve users problems based on ‘it’s ticked to display but I can’t see anything...’

## GIS Symbols and Scales

| Symbology | Asset | Scale |
|---|---|---|
| **Substation Locations** | | |
| **/ SOP** | | |
|  | SOP | 250 - 7,505 |
| **/ Ground-Mounted Sub** | | |
|  | Trans/Grid Substation (including. Switchgear Only) | <51,000 |
|  | Primary Substation (including. Switchgear Only) | <50,000 |
|  | Secondary Substation (including. Switchgear Only) | 40 - 7,505 |
|  | LV Only Substation | 40 - 5,005 |
|  | Externally Deleted Substation | Same as their voltages above |
|  | Building and Site Only | Same as their voltages above |
| **/ Pole-Mounted Sub** | | |
|  | Pole Mounted Secondary Substation | <25,000 |
|  | Pole Mounted Secondary Substation (Externally Deleted) | <25,000 |
|  | Remote Equipment Location | <25,000 |
|  | Remote Equipment Location (Externally Deleted) | <25,000 |
| **/ Dynamic Protective Device** | | |
|  | Dynamic Protective Device (Unknown) | <40 |
|  | Circuit Breaker | <40 |

| | | |
|---|---|---|
|  | Circuit Breaker (Externally Deleted) | <40 |
|  | Sectionaliser | <40 |
|  | Sectionaliser (Externally Deleted) | <40 |
|  | Pole Mounted Auto Recloser | <40 |
|  | Pole Mounted Auto Recloser (Externally Deleted) | <40 |
| **/ Protective Device** | | |
|  | Protective Device (Unknown) | <1,000 |
|  | Switch Fuse<br>Fuse Gear | <1,000 |
|  | Switch Fuse (Externally Deleted)<br>Fuse Gear(Externally Deleted) | <1,000 |
| **/ Switch** | | |
|  | Switch (Unknown) | <40 |
|  | Switch<br>AB Switch Disconnector<br>PM Switch | <40 |
|  | Switch (Externally Deleted)<br>AB Switch Disconnector (Externally Deleted)<br>PM Switch (Externally Deleted) | <40 |
| **/ Distribution Transformer** | | |
|  | Distribution Transformer (Unknown) | <40 |
|  | Pole Mounted / Ground Mounted<br>Secondary Transformer | <40 |
|  | Pole Mounted / Ground Mounted<br>Secondary Transformer (Out Of Use) | <40 |
| **/ LV Fuse** | | |
|  | LV Fuse | <40 |

| | | |
|---|---|---|
| **Overhead Assets** | | |
| **Under Each Voltage** | | |
|  | Single Pole | <7,505 |
|  | A Pole | <7,505 |
|  | H Pole | <7,505 |
|  | 3 Member Pole | <7,505 |
|  | 4 Member Pole | <7,505 |
| **/ Trans / Tower** | | |
|  | Single Circuit | <10,005 |
|  | Dual Circuit | <10,005 |
|  | Tri Circuit | <10,005 |
|  | Quad Circuit | <10,005 |
| **/ Support Structure** | | |
|  | Stay | <5,005 |
|  | Flying Stay | <5,005 |
| **Low Ground Clearance** | | |
|  | Hazard Observation | 250 - 7,505 |
|  | Location Risk | 250 - 7,505 |
|  | Span | 250 - 7,505 |

| Ground Assets | | |
|---|---|---|
| **Under Each Voltage** | | |
|  | Cable Joint | <750 |
| **Under Each Voltage** | | |
|  | Trans Metered Service Point (400/275/132kV) | <2,005 |
|  | EHV Metered Service Point | <2,005 |
|  | HV Metered Service Point (22kV) | <2,005 |
|  | HV Metered Service Point (11kV) | <2,005 |
|  | HV Metered Service Point (6.6kV) | <2,005 |
|  | LV Metered Service Point | <2,005 |
| **/ Non Voltage Specifics** | | |
|  | Fault Symbol | <7,505 |
|  | System Abnormal | <7,505 |
|  | Temporary Joint | <7,505 |
|  | Working In Progress | <7,505 |
|  | Duct (1 Line to 20 Line) | <2,505 |
| **/ LV / LV Switch Point** | | |
|  | Pillar | <2,505 |
|  | Link Box | <2,505 |
| **/ LV / UnMetered Service Point** | | |

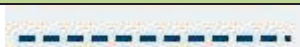
| | | |
|---|---|---|
| | Unmetered Service Point | <2,000 |
| **General Info** | | |
| **/ SAP** | | |
| | SAP Observations | <5,000 |
| **/ Data Management Return** | | |
| DMR | DMR - Outstanding | <10,000 |
| DMR | DMR - Complete | <10,000 |
| **/ Area Info** | | |
| | Independent Network Operator | <10,000 |
| | Contaminated Ground | <10,000 |
| | ACCESS ALERT | <10,000 |
| | Ad Hoc instances | <10,000 |
| | Shallow Cables | <10,000 |
| | Problem | <10,000 |
| | Second Comer | <10,000 |
| | Substation Compound | <10,000 |
| | Wayleave Access | <10,000 |
| **/ Line Info / Assumed Route** | | |
| < > | Assumed Route | <1,255 |
| **/ Line Info / Others** | | |
| < > | Duplex | <1,255 |
| < > | IDNO | <1,255 |

| | | |
|---|---|---|
| < > | Water Main | <1,255 |
| < > | Moled Cable | <1,255 |
| < > | Non Standard Depth | <1,255 |
| **/ General Info / Category 1** | | |
| | Access Alert | <3,000 |
| | Danger | <3,000 |
| | G59 Generator | <3,000 |
| | Generator | <3,000 |
| | IDNO | <3,000 |
| | Point Of Connection | <3,000 |
| | Potential Generation | <3,000 |
| **/ General Info / Category 2** | | |
| | Fault Indicator | <2,005 |
| | LVFM | <2,005 |
| | Missing As-Laid | <2,005 |
| | Missing Joint | <2,005 |
| | Sensitive Building | <2,005 |
| | Susceptible To Flooding | <2,005 |
| | Zero Customers | <2,005 |
| **/ General Info / Category 3** | | |

| | | |
|---|---|---|
|  | 11Kv Surge Divertor | <2,005 |
|  | 33Kv Surge Divertor | <2,005 |
|  | Approximation | <2,005 |
|  | Assumed Position | <2,005 |
|   | Clarity Point | <2,005 |
|  | Earth Point | <2,005 |
|  | Edge Connector | <2,005 |
|   | Forced Connectivity | <2,005 |
|   | Functional Location | <2,005 |
|   | Lateral Mains | <2,005 |
|   | Note | <2,005 |
|  | Pseudo Joint | <2,005 |
|   | Quality | <2,005 |
|   | Second Corner | <2,005 |
|   | Voltage Regulator | <2,005 |
| **/ Proposed Development** | | |
|   | Proposed Development | <7,505 |
| **/ Environmentally Sensitive Areas** | | |

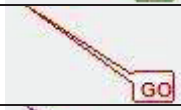
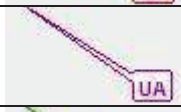
| | | |
|---|---|---|
| | National Parks | <50,000 |
| | Areas of Outstanding Natural Beauty | <50,000 |
| | Special Protection Areas | <50,000 |
| | Special Area of Conservation | <50,000 |
| | RAMSAR | <50,000 |
| | National Nature Reserves | <50,000 |
| | Site of Special Scientific Interest | <50,000 |
| | Ancient Woodland | <50,000 |
| | Scheduled Monuments | <50,000 |
| | National Scenic Areas | <50,000 |
| **OS** | | |
| **/ Customers Details** | | |
| | Medically sensitive | <2,000 |
| | Other Sensitive | <2,005 |
| | Non Sensitive | <2,005 |
| CS | Commercially Sensitive Customer | <20,000 |

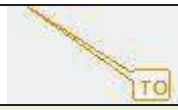
## Overhead Lines, Underground Cables and Non Power Cables

| Symbology | Asset | Scale |
|---|---|---|
| **Overhead Assets** | | |
|  | Trans | <65,000 |
|  | 33kV | <50,000 |
|  | 22kV | <50,000 |
|  | 11kV | <50,000 |
|  | 6.0kV and 6.6kV | <50,000 |
|  | LV | <50,000 |
|  | Out of Use | Same as their voltages above |
| **Ground Assets** | | |
|  | Trans | <65,000 |
|  | Trans (Out of Use) | <65,000 |
|  | 33kV | <50,000 |
|  | 33kV (Out of Use) | <50,000 |
|  | 22kV | <50,000 |
|  | 22kV (Out of Use) | <50,000 |
|  | 11kV | <7,505 |
|  | 11kV (Out of Use) | <7,505 |
|  | 6.0kV and 6.6kV | <7,505 |
|  | 6.0kV and 6.6kV (Out of Use) | <7,505 |
|  | LV | <5,005 |
|  | LV (Out of Use) | <5,005 |
| **General / Third Party Data** | | |
|  | Third Party Overhead Lines | <100,000 |
|  | Third Party Underground Cables | <10,000 |
|  | High Pressure Gas Pipelines | <65,000 |
| **General / Third Party Data / Dee Valley Water** | | |
|  | Raw Water | <50,000 |

| | | |
|---|---|---|
| | Potable Water | <50,000 |
| | Non Potable Water | <50,000 |

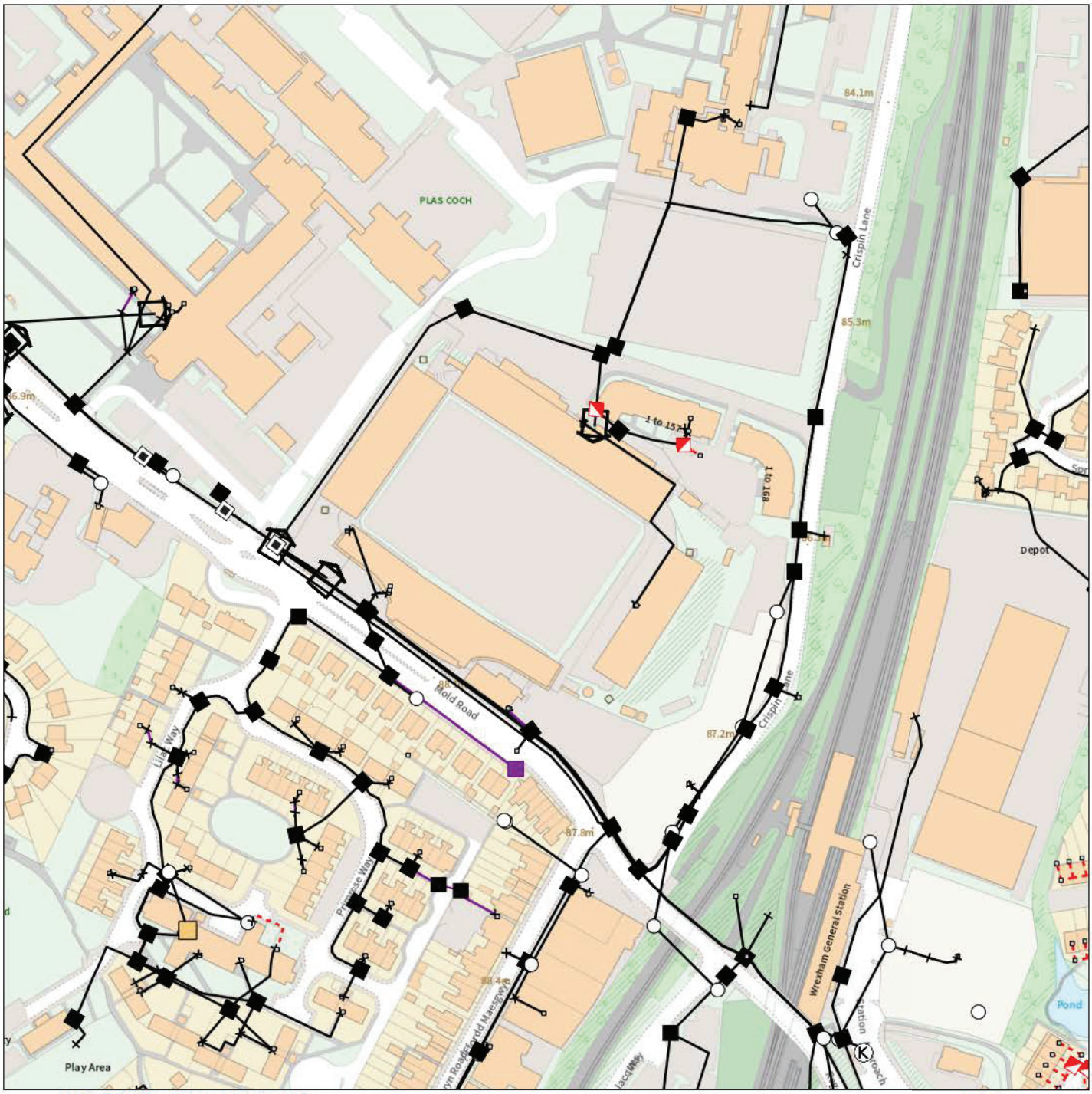
## GND Symbols and Scales

| Symbology | Asset | Scale |
|---|---|---|
| **GND** | | |
| **LV Diagram / Dressing Symbology / Surveyed State & Design State Archive 27032011** | | |
|  | Normally Open | None |
|  | Grid Open | None |
|  | Automation | None |
|  | Surveyed Open | None |
|  | Surveyed Closed | None |
|  | Presumed Open point | None |
| **LV Diagram / Dressing Symbology / LV Link** | | |
|  | Fused | None |
|  | Temporary Closed | None |
|  | Normally Open | None |
|  | Grid Open | None |
|  | Urban Automation | None |
|  | Presumed Open | None |

| | | |
|---|---|---|
|  | Temporary Open | None |
| **LV Diagram / LV Transition Point** | | |
|  | LV Transition Joint | <2,505 |
| **LV Diagram / LV Switch Point** | | |
|  | Pillar | None |
|  | Link Box | None |
| **/ General** | | |
|  | Commercially Sensitive Customer | <7,505 |
|  | Out Of Phase | <5,505 |
|  | Proposed Development | <7,505 |
|  | Fault Symbol | <7,505 |
|  | System Abnormal | <7,505 |
|  | Work In Progress | <7,505 |

# BT (Openreach)

# 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

ADVANCE NOTICE REQUIRED
(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 SYMBOLS

| | Planned | Live |
|---|---|---|
| PCP | | |
| Pole | | |
| Box | | |
| Manhole | | |
| Cabinet | | |

| | | | |
|---|---|---|---|
| Change Of State | + | Hatchings | |
| Split Coupling | × | Built | |
| Duct Tee | ▲ | Planned | |
| Building | | Inferred | |
| Kiosk | K | Duct | |

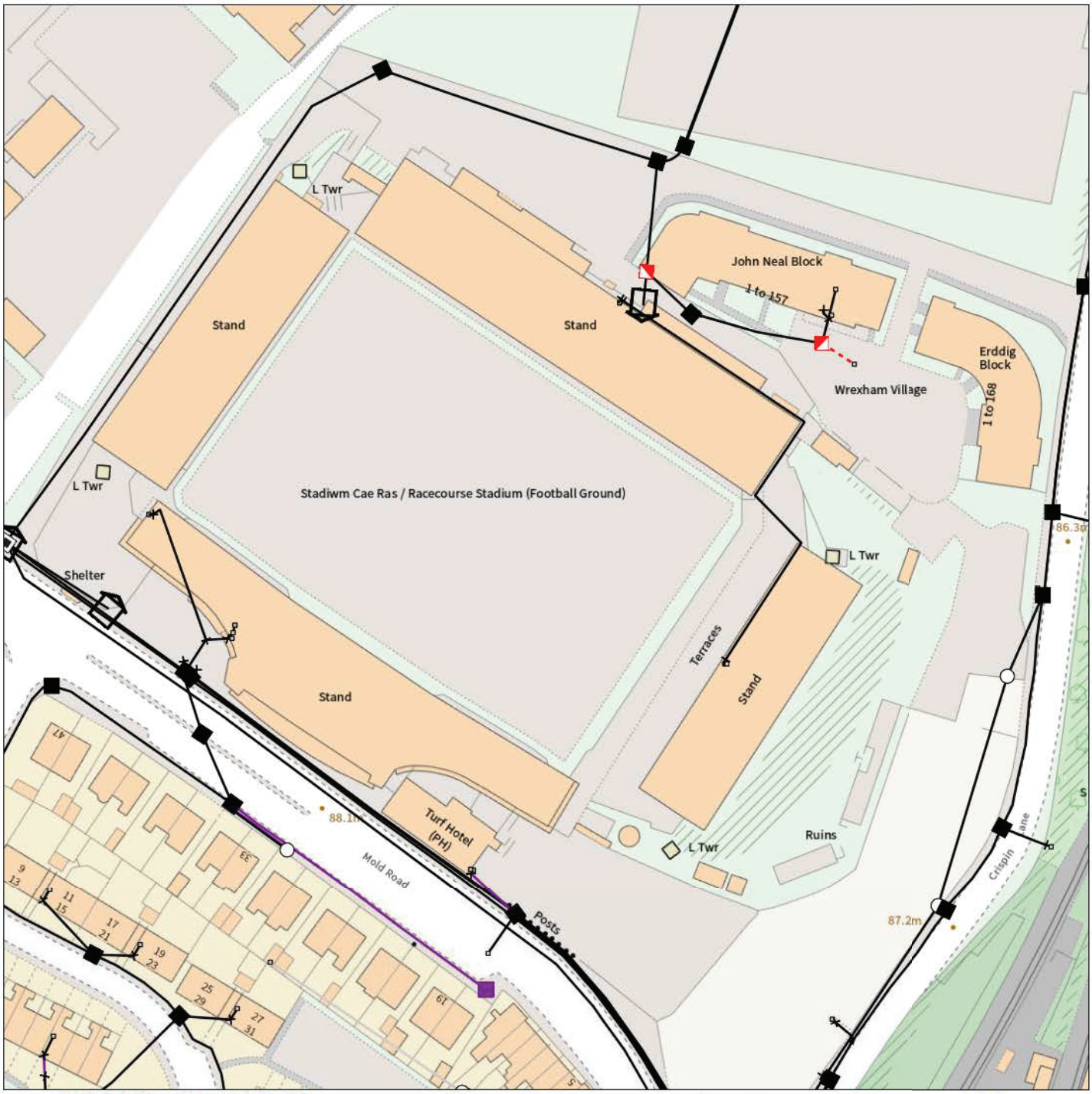
Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

| | Pending Add | In Place | Pending Remove | Not In Use |
|---|---|---|---|---|
| Power Cable | | | | |
| Power Duct | | | | N/A |

BT Ref : GEE02237C
Map Reference : (centre) SJ3283050981
Easting/Northing : (centre) 332830,350981
Issued : 17/09/2021 14:23:16

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

# Maps by email Plant Information Reply




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openreach

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Controller of Her Majesty's Stationary Office
(C) Crown Copyright British Telecommunications plc 100028040


### KEY TO BT SYMBOLS

| | Planned | Live |
|---|---|---|
| PCP | | |
| Pole | | |
| Box | | |
| Manhole | | |
| Cabinet | | |

| | | | |
|---|---|---|---|
| Change Of State | + | Hatchings | |
| Split Coupling | × | Built | |
| Duct Tee | ▲ | Planned | |
| Building | | Inferred | |
| Kiosk | Ⓚ | Duct | |

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

| | Pending Add | In Place | Pending Remove | Not In Use |
|---|---|---|---|---|
| Power Cable | | | | |
| Power Duct | | | | N/A |

BT Ref : OMB02237W
Map Reference : (centre) SJ3283050981
Easting/Northing : (centre) 332830,350981
Issued : 17/09/2021 14:23:40

**WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk**

openreach



















# Identifying our equipment



If you're planning or building a new development, working on a regeneration project or undertaking roadworks it's likely that you'll come across some of our network infrastructure.

This guide includes images and descriptions of the most common types of equipment (past and present) to help you identify what's on your site so we can best advise you if you need anything moved or removed.

If you're not sure, please contact us – ideally sending a photo of the plant on your site – before you start work.

# Poles and attachments



There are currently three materials used for poles: wood, steel and fibreglass.
Wooden poles vary in length from 7 to 15m depending on the span the lines need to cover.

There are two types of pole in use:

- **Radial Distribution Poles:** typically to serve a number of properties in a street
- **Carrier Poles:** typically found in more rural locations, these are often used to provide an overhead route from A to B.

## Pole markings



**Owner of the pole** – In this case BT. Older poles may also be marked as GPO or PO

**Pole length and class (light, medium or stout)** – 10L = 10m light

**Year of preservation** – 97

**Supplier marker and type of wood** – 2I = supplier 2 and Imported (I)




The punch hole sign is a testing cycle sign. This label is for internal Openreach use.

The pole reference number:

**Distribution Pole** – The letters DP, plus a number, in this case 19.

**Carrier Pole** – No letters, just a number will be shown.

You may also see square metal labels with a letter on a pole, i.e. C, D, H, SD and Z. These indicate the status of the pole to a visiting engineer.

## Street covers and cabinets

Street covers and cabinets ( PCP ) have changed over the years, from cast iron to fibreglass to pressed steel. Sizes vary and all are made in single door versions. The most common examples are:



Cast iron cabinet



Fibreglass cabinet



Single door cabinet (with replacement steel door)



Steel cabinet



All-in-one cabinet

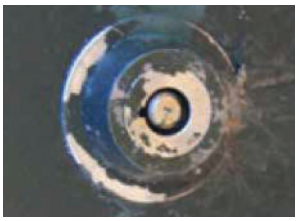
## How to spot one of our cabinets: keys and markings

Openreach and Virgin Media both have street cabinets and they look quite similar. Often the only difference is the type of key needed to open them. Openreach cabinets have a triangular or star shaped insert, while Virgin Media use conventional keys (see below).





Openreach keys



Virgin Media key

All Openreach cabinets, frames and covers, are marked to show who owns them. Examples of these markings and the materials cabinets are made of are shown below.




Cast iron GPO marking



Fibreglass Telecom marking




Steel BT marking

## Carriageway covers

These boxes generally contain small customer connections. The old type of covers were made of concrete with a concrete lid while current covers are made of fibreglass and have a steel lid.

There are generally two types of carriageway covers. Those with a T-shaped key, the Silent Night, and those with a D-shaped key, the Elkington. Both types were supplied in all sizes and while the design varied slightly all have ownership markings on them.

All sizes are approximate.

**Carriageway covers with two triangular lids**



CW No.1
Silent Night
680mm x 680mm



CW No.1
old type (Elkington)
inserts vary



Very old round
CW no.1

**Carriageway covers with four triangular lids**



CW No.2 Silent Night
1220mm x 680mm



CW No.2 old type
(Elkington)

**Carriageway covers with six triangular lids**



CW No.3 current type



CW No.3 Silent Night type



CW No.3 Elkington type

# Footway covers

Footway covers come in six basic sizes: small, medium, large, square, twin and triple, although there are size variants within some types. All sizes are approximate.

### Small covers

These lids cover boxes which generally contain small customer connections. Previously the boxes and lids were made of concrete, but the current footway boxes are made of fibreglass and have steel lids.



JB21 31x41cm



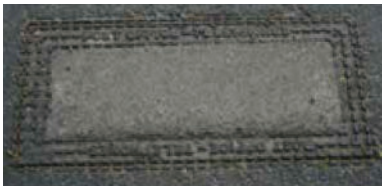
JB22 41x61cm



JB23 28x50cm

### Medium covers

There is only one size of cover in this category. This lid can be found on a fibreglass preformed box, JB26, as well as a concrete/brick chamber, JF2. As with the JB 23 small footway box above the JB26 will have a thin white edge around the cover while the JF2 has a fillet.



Old style cast iron and concrete 38x80cm



JF2/JB26 34x80cm

### Large covers

Along with the twin, this is probably the most common footway type in the network. Originally the covers were made of cast iron and concrete but now they're just made of concrete.



JF4 current type 55x100cm



JF4 old type 55x100cm

### Square covers

These covers are placed over manholes and are found in the footways and verges.



JF5 70x70cm



JF5 old type 70x70cm

### Twin covers

This cover shown in the section is probably the most common footway type in our network. Originally the cover was made of cast iron and concrete but now they're just made of concrete. You can see variations to the inserts and markings below.



JF6
70x140cm



JF6 old cast and concrete type 70x140cm

### Triple covers

The two sizes of triple lid covers are shown here.



JF10 80x240cm



JF11 80x140cm

# Inserts and markings

In this section you can see examples of the markings that you would expect to find on our equipment.

**Footway**

Examples of the current JF4 and JF5 inserts are shown below. The number ‘4’ or ‘5’ shown on the right hand side of the insert identifies the type. The letters ‘DW’ shown on the top right hand corner of the JF5 box indicate that this is a drive way lid built to stand further loading.




JF4




JF5

The following examples show the changes undertaken from GPO to BT.