

QuadConsult Limited
Columbus House
Village Way
Greenmeadow Springs Business Park
Cardiff
CF15 7NE

Tel: +44 (0)29 2077 9644
email: contactus@quadconsult.co.uk
Web: <https://quadconsult.co.uk>

HOOVER SITE, MERTHYR

DRAINAGE STRATEGY REPORT

prepared for

WALTERS LAND LIMITED

Date: January 2025

Document ref no. 24358-R-601-Drainage Strategy-A



Directors

Chris Usher BSc(Hons) CEng FStructE MICE AaPS
Andrew Villis
Mark Llewellyn
William Harrow BSc(Hons) MSc(Hons) CEng MICE AaPS

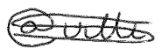
Cardiff Head Office: Columbus House, Village Way, Greenmeadow Springs Business Park, Cardiff CF15 7NE
Gloucester Office: Southgate House, Southgate Street, Gloucester, GL1 1UB
Cross Hands Office: Offices H & I, Parc Gelli Werdd, Rhodfa'r Glo, Cross Hands, Llanelli, SA14 6EF

QuadConsult Limited is Registered in England and Wales with Registration No. 06880193
Registered Office: Columbus House, Village Way, Greenmeadow Springs Business Park, Cardiff CF15 7NE

DRAINAGE STRATEGY

Hoover Site, Merthyr

Document Control

Responsible for	Job Title	Name	Date	Signature
Content	Consultant	Steve McCarthy	22 January 2025	
Checked	Director	Andrew Willis	22 January 2025	
Approval	Director	Andrew Willis	22 January 2025	
Copyright:	QuadConsult ©2025	Document Reference:	24358-R-601-Drainage Strategy-A	
Signatories in this approval box have checked this document in line with the requirements of QuadConsult QMS Procedures				

Revision History

Revision	Date	Purpose/Status	Approved
0	4 February 2025	Draft/ Comment	ACV
A	6 February 2025	Approval	ACV
B			
C			
D			
E			
F			

Distribution

	Function Title	Company	Name
1		Walters Land Limited	
2		Merthyr Tydfil CBC	
3			

CONTENTS

Section	Item	Page
1.0	INTRODUCTION	1
2.0	SITE LOCATION & DESCRIPTION	2
3.0	EXISTING DRAINAGE	4
4.0	EXISTING FLOOD RISK	6
5.0	APPLICATION OF DRAINAGE HIERARCHY	8
6.0	PROPOSED DRAINAGE STRATEGY	10
7.0	COMPLIANCE WITH NATIONAL SUDS STANDARDS	12
8.0	SUMMARY & RECOMMENDATIONS	14

APPENDIX A – EXISTING SITE SURVEY

APPENDIX B – EXISTING DRAINAGE AND UTILITIES SURVEY

APPENDIX C – CONSTRAINTS PLAN

APPENDIX D – FLOOD RISK MAP

APPENDIX E – SAB CORRESPONDENCE

APPENDIX F – BROWNFIELD RUNOFF CALCULATIONS

APPENDIX G – 'DUMMY' DRAINAGE MODEL

APPENDIX H – WELSH WATER CORRESPONDENCE

APPENDIX I – PRELIMINARY ATTENUATION CALCULATIONS

APPENDIX J – PROPOSED DRAINAGE STRATEGY SCHEMATIC

List of Figures

References

- 1 [CIRIA – The SuDS Manual \(C753\)](#)
- 2 [UK SUDS \(www.uksuds.com\)](http://www.uksuds.com)
- 3 [Welsh Water Asset Plans](#)
- 5 [Google Maps](#)
- 6 [Ordnance Survey Mapping](#)
- 7 [BRE Digest 365 Soakaway Design](#)
- 8 [National Soil Resources Institute \(SoilScapes\)](#)
- 10 [Natural Resources Wales Flood Risk Map](#)
- 12 -

Abbreviations

DCWW	DWR Cymru Welsh Water
A.O.D.	Above Ordnance Datum
NRW	Natural Resources Wales
FW	Foul Water
SW	Surface Water
SuDS	Sustainable Drainage Systems
l/s	Litres Per Second

This document has been created during the design stage of the project and should not be used as a replacement for the final operation and maintenance requirements of the proposed works. It shall remain relative only to those features identified on the attached plan. This document is intended to support the development of the official operation and maintenance document which shall be the responsibility of the principal contractor.

This document is for the exclusive use of the client and should not be used in whole or in part by any third parties without the express written permission of QuadConsult Limited.

1.0 INTRODUCTION

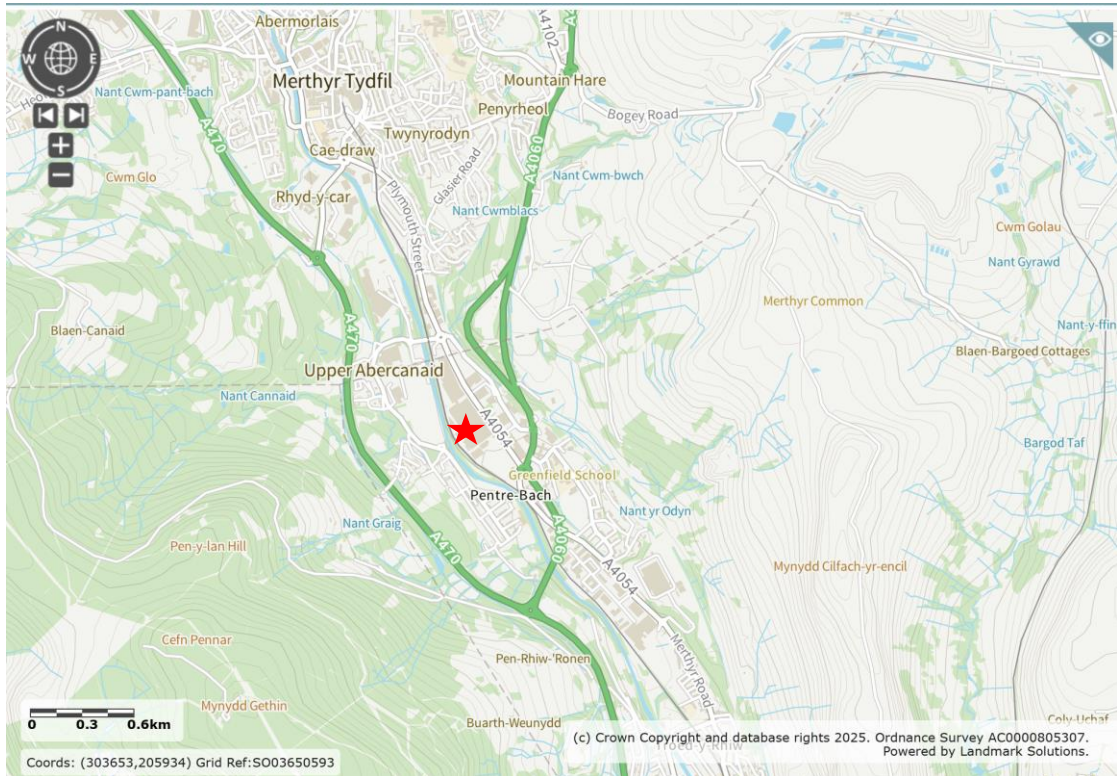
QuadConsult Limited has been appointed to prepare a foul and surface water drainage strategy for a proposed circa 450-unit residential development on the site of the now redundant Hoover manufacturing plant in Merthyr Tydfil. The report will review and assess all current information made available to QuadConsult Limited and develop a robust strategy to service the development making recommendations for any additional investigation works that may be required.

Preliminary calculations have been prepared to assess with design development including proposed attenuation features and approximate sizes which may vary slightly during the detailed design process.

Two additional land parcels are to form part of the wider development immediately north of Merthyr Rd, although separate self-contained strategies are envisaged for these so fall outside the scope of this report.

2.0 SITE LOCATION & DESCRIPTION

The site is located on the west of Merthyr Road, the site centre coordinates being 305701mE; 204213mN and the nearest postcode being CF48 4TU. It covers an area of approximately 13.66ha and is the former Hoover manufacturing plant opened in 1948 with production finishing in 2009 after which it was used primarily as a warehouse and distribution centre.



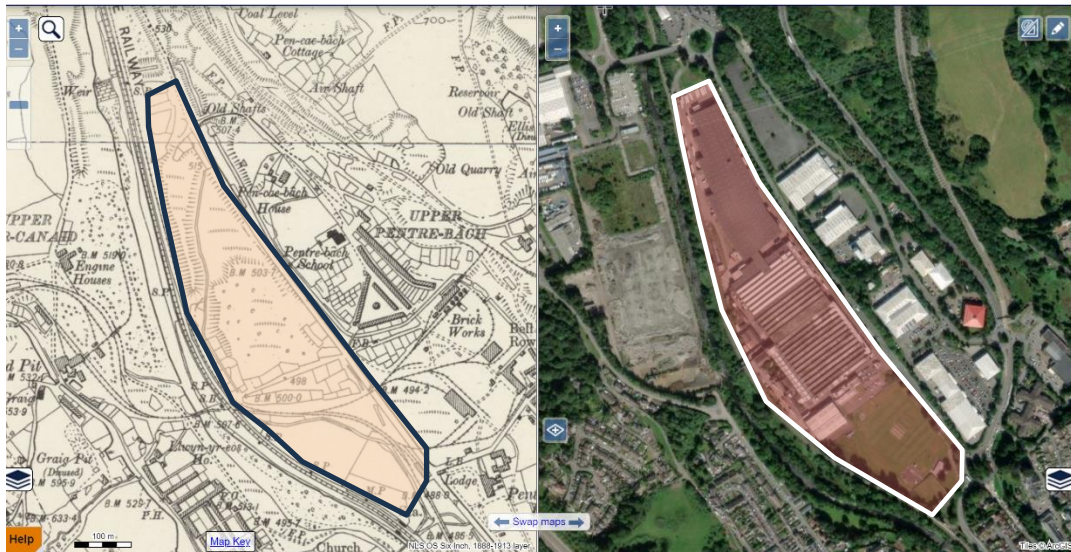
Site Location Plan

The site is bounded to the east by the A4054 (Merthyr Road) and a live Network Rail line to the west which in turn lies adjacent and east of the River Taff. A topographical survey is included in Appendix A.

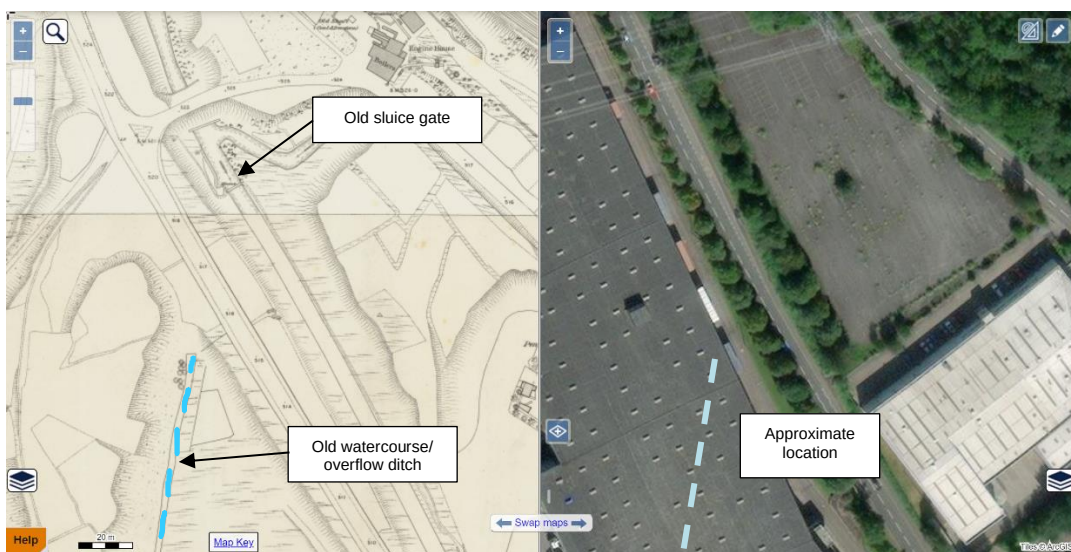
It is primarily hard surfaced with buildings, service yards and highway infrastructure although a cricket pitch and bowls green occupy approximately 3.38ha of the lower half; a treelined verge forms the eastern boundary immediately adjacent Merthyr Road. The site is relatively flat in nature with pronounced terracing stepping down in a southerly direction from 159m AOD to 149m AOD.

The site is serviced with main utilities infrastructure and both a surface and foul water drainage network as indicated in Appendix B.

The site was historically part of the wider Plymouth Ironworks situated there during the 18th and 19th centuries formed of slag heaps and tramway rail lines with a watercourse/ditch running north to south as shown overleaf. A more detailed review of the plans suggest that this ditch may have been an overflow to the water feed serving the ironworks from the River Taff and not the result of a natural spring or ditch to convey rainfall runoff (see overleaf).



Site associated with the former Ironworks



Conjectured Watercourse/ overflow from water feed to former Ironworks

2.0 EXISTING DRAINAGE

2.1 Land Drainage

No obvious land drainage is picked up on the topographic survey or CCTV survey although it is reasonable to assume that land drainage servicing the cricket pitches and bowls green exists.

2.2 Overland Flow & Exceedance Routes

Existing exceedance and overland flows would follow the topography of the site conveying flows towards the southeast corner of the site.

2.3 Surface Water Drainage Network

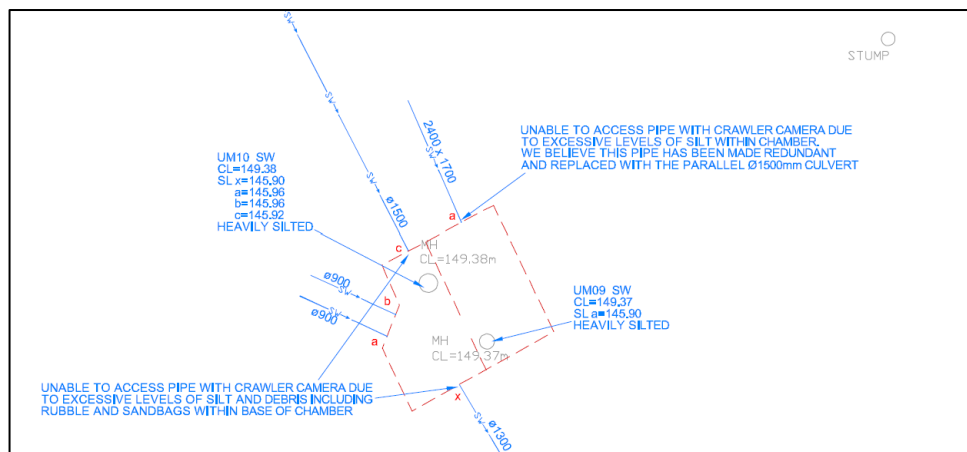
The constraints plan contained in Appendix C shows the route of the primary surface water drainage servicing the development. Broadly speaking, the site is sub divided into two main catchments, the north catchment discharging into the River Taff via the 500mmØ outfall highlighted on the plan. This pipe passes beneath the main Network Rail line prior to outfall into the River Taff.

The actual outfall (presumed headwall) structure has not been surveyed at this stage, but its precise level, location and condition should be established including the presence (or otherwise) of any associated flow controls or flap valves.

Furthermore, the pipe itself was found to be partially blocked by large stones which should be removed prior to re-survey so that the condition can be checked fully.

Review of the existing drainage to the northern catchment revealed numerous other defects although these can largely be ignored as it is not earmarked for re-use. No 'live' inflows or conveyance systems from outside third parties were noted or recorded.

Turning to the southern catchment, this drains via a 900mm gravity trunk main to a confluence with a 1600mmØ pipe and a 2.4m x 1.7m box culvert, the latter of which is believed to be redundant and full of silt.

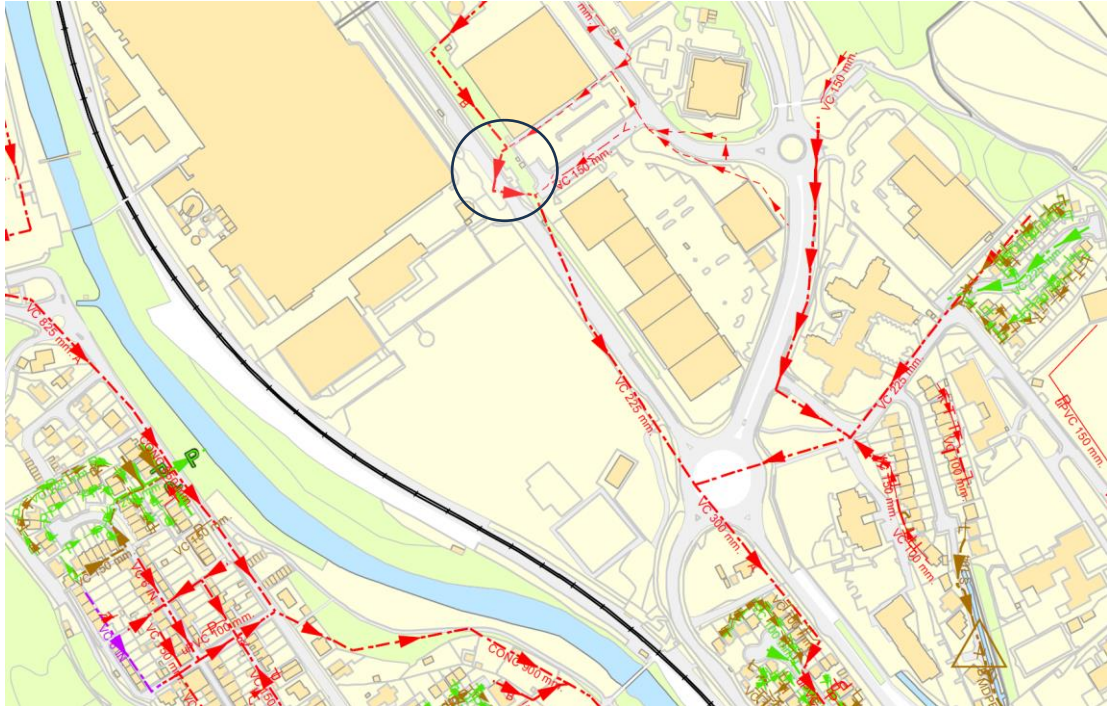


The main inlet and outlet pipes from this chamber appear to originate from Merthyr Road, passing through the site before returning to Merthyr Road once again. Easements may exist over this apparatus all of which require further jetting works so that CCTV and condition can be confirmed. Ownership should also be established although in all likelihood it belongs to the

highway authority or landowner. The 1300mmØ drain exiting the site is likely to be the preferred option for SW discharge of the proposed southern parcel.

2.4 Existing Foul Water Drainage Network

As described above, the site is served by a dedicated foul water drainage network in private ownership which connects into a DCWW combined sewer within the main site access as shown below:



Similar to the surface water system, none of the current on-site private sewer network is likely to be retained for future re-use. No third-party sewers are known to pass through the site based upon information received to date.

2.5 Existing Combined/Other Drainage

DCWW have a combined sewer chamber situated within the main site entrance and will have an easement over it, assumed to be 6m at this stage. A 225mmØ pipe exits into the main adopted DCWW network serving the surrounding area (see above).

3.0 EXISTING FLOOD RISK

NRW Development Advice Map confirms the site to lie wholly within Flood Zone A – at little or no risk of fluvial or coastal/tidal flooding. No recorded flood events have been reported and recorded on the NRW datamap.

3.1 Flood Risk from Rivers

NRW flood mapping (Refer to Appendix D) indicates little/no risk of flooding from main Rivers

3.2 Flood Risk from Sea

NRW flood mapping (Refer to Appendix D) indicates little/no risk of flooding from the Sea.

3.3 Flood Risk from Surface Water & Small Watercourses

NRW confirm that several areas of the existing site could be subject to minor flooding as a result of inundation or blockage of the storm network which could be expected on a site of this size with localised flat areas. As the site is to be remediated and re-profiled this flood risk element will be removed and no longer present.

3.4 Flood Risk from Reservoir

NRW data confirms the site to be at risk of flooding from a reservoir breach. Interrogation of the database confirms this risk to emanate from these potential sources:

- Beacons Reservoir
- Llwyn-On Reservoir
- Cantref Reservoir
- Pontsticill (Taf Feehan) Reservoir

As these structures (reservoirs) are owned, operated and maintained at public expense by Welsh Government and Natural Resources Wales the likelihood of breach or overtopping is deemed negligible and manageable. Proposed homeowners within the site will be advised to register with the 'Floodline' service as a precautionary measure.

3.5 Other Flood Risk (Mines, Piped Network, etc)

Flooding via groundwater is unlikely to present an issue as the site is proposed to be remediated and elevated over existing site levels although two other sources of flooding should be considered during the design development phase namely;

- Flooding from the River Taff via the existing surface water outfall
- Flooding from Merthyr Road

3.6 Flooding via Outfall

The drainage survey confirms a 500mm outfall serving Catchment A (the upper catchment) discharging to the River Taff. The level and condition of this outfall should be confirmed prior to detailed design as there may be potential for floodwater to flow back into the site if the river were in the flood condition. The presence of a flood flap valve may prevent this although there remains the potential for this to lock in the open position should a build-up of silt or debris prevent it from closing.

3.7 Flooding from Merthyr Road

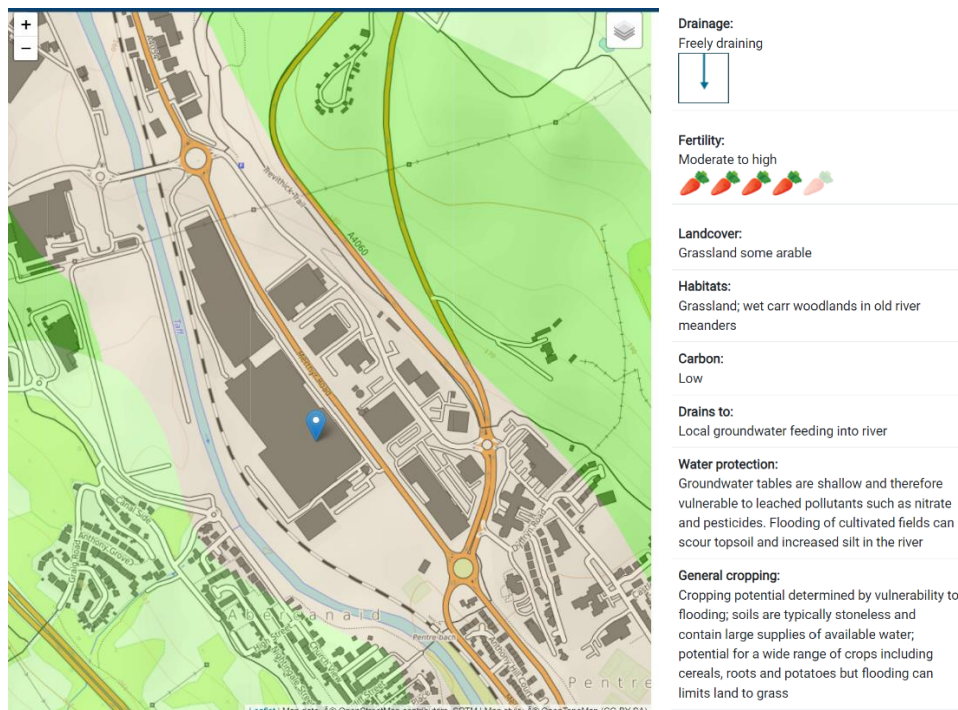
New accesses are proposed direct off Merthyr Road which is elevated above the existing level of the development site. Consequently, there may be potential for runoff from the highway to drain back into the site should highway gullies and pipes surcharge and flood.

The likelihood of this happening cannot be determined until site levels are set but consideration of this potential flood risk should be considered at detailed design stage. QuadConsult Limited will assess the developed site in terms of residual flood risk and flood water routing following detailed design to mitigate against this risk.

4.0 APPLICATION OF DRAINAGE HIERARCHY

4.1 Discharge to Ground

Preliminary information from Soilscares indicate the soils to typically be free draining into local groundwater feeding into the river. As the site is largely brownfield this description cannot be relied upon because of historical developments including the presence of slag heaps during the iron production period. Similarly, as the site is to be remediated and re-profiled, shallow soil conditions and the potential for contaminants to exist may preclude any disposal of surface water via infiltration techniques due to possible leachate potential.



Extract from Soilscares

QuadConsult Limited would not support disposal of surface water through infiltration at this stage until more is known about ground conditions. Naturally, if contaminants are not present and infiltration potential exists then disposal via this method will be implemented where possible although QuadConsult Limited does not believe that all runoff could be disposed of in this manner due to the size and scale of the proposed development.

QuadConsult Limited recommend a series of infiltration and contamination tests post remediation.

4.2 Discharge to Surface Water Body

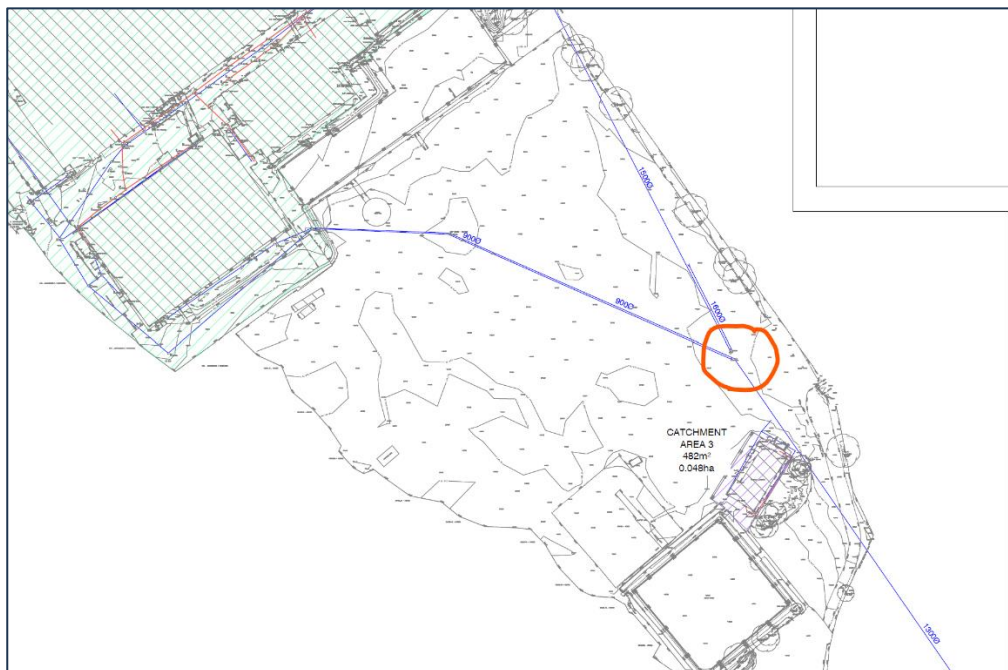
The River Taff flows north to south some 40m west of the development site and already provides a direct connection to service the northern part of the site. QuadConsult Limited would recommend using this existing outfall following completed CCTV survey and establishing the final outfall level and condition. The lower part of the site will **not** be able to use this as a connection point due to level differences and clearly constructing a new pipe and outfall under a live rail line would not be economically viable or practical. Discharge rates have already been

established and agreed in principle with the SAB. A max rate of 162 l/s is proposed which offers a 50% reduction in outflow through the existing culvert (see Appendix E)

4.3 Discharge to Surface Water Sewer (1. Highway Sewer, 2. Other SW Sewer)

Following detailed survey and CCTV within the site, QuadConsult Limited would recommend re-using the existing surface water sewer located in the southeastern corner of the site adjacent the bowling green. This large chamber (referred to as the confluence chamber) in the preceding sections benefits from a 1300mmØ outfall pipe and has previously accommodated a high degree of surface water discharge from the site. Some debris is known to be present downstream so this should be cleared so that its overall condition can be fully assessed.

Preliminary discussions with the SAB have been very productive and agreed maximum discharge rates of 162 l/s for the northern catchment and 287 l/s for the southern, with surface water attenuation being provided in attenuation basins.



5.0 PROPOSED DRAINAGE STRATEGY

The proposed development will consist of circa 450 units including apartment blocks and a mix of open market and social housing. A new 'green' corridor is proposed along the western boundary with the rail line with the tree lined corridor effect adjacent Merthyr Road retained wherever possible. Conveyance of runoff will be overland where possible with primary surface water attenuation being provided within detention basins (underlain with cellular storage) situated strategically across the site.

5.1 Surface Water

The surface water drainage strategy will comply with SAB/SuDS protocols and work within the site layout and constraints of the proposed development.

The site is brownfield in nature and discharges to both the River Taff and surface water drainage network as described in the preceding sections and on the existing drainage infrastructure plans contained in Appendix B.

QuadConsult Limited have prepared an existing catchment plan to determine brownfield runoff rates as shown in Appendix F. Predicted discharge rates have then been calculated using the modified rational method and summarised below.

Catchment	Brownfield Flow (l/s)
A	324
B	571

As an additional check and safeguard, a 'dummy' drainage model has been prepared for the lower catchment (B) to assess the hydraulic capacity of the 1300Ø pipe. The results presented in Appendix G confirm the capacity of the receiving sewer to be circa 3292 l/s and when proposed flows are restricted by 50% (as agreed with SAB) spare capacity will still be available within the existing network. Applying the 50% reduction to the brownfield flow rates will result in the peak allowable flows and associated post development attenuation requirements for the individual catchments as follows:

Catchment	Q _{allowable}	Storage
A	162 l/s	1353m ³
B	287 l/s	2928m ³
C	2.3 l/s	Incl in B

Storage values based on Q₁₀₀ + 40% CC

For preliminary design purposes these attenuation volumes have been distributed across the site so that the surface water can be treated 'at source' in accordance with CIRIA C753.

The proposed layout provides space for roadside conveyance over much of its length with opportunities to incorporate porous pavements within private roads, access ways and parking

zones. The general fall of the proposed development will be north to south with a gentle incline towards the western boundary. This will present good opportunities to reinforce the proposed 'green corridor' with swales and bioretention strips that link back into the detention basins and site in general to encourage biodiversity and amenity well into the development. This zone also presents a valuable function for flood routing (if ever required) in extreme storm events by directing exceedance flows away from the properties. The 'green corridor' could also incorporate a small raised 'bund' area to prevent flows exiting the site towards the rail line, routing them in a southerly direction back towards the main road and River.

Whilst disposal via infiltration may not prove viable as a solution in itself, QuadConsult Limited propose to leave all above ground conveyance paths unlined to allow a degree of infiltration if ground conditions (including zero contamination) permit.

Under current Welsh Government policy any SW infrastructure conveying flows from more than one curtilage requires adoption by the SAB.

QuadConsult Limited would propose to support this ethos with all SW infrastructure being offered to the SAB and will be subject to commuted sums for ongoing maintenance and potentially end of life replacement costs where applicable. SuDS features for individual plots will remain private and be maintained by the homeowner or communal tenants/RSA if applicable.

All SuDS features are proposed to be maintained in accordance with a schedule to be agreed with the SAB and based upon CIRIA SuDS Manual Guidance.

5.2 Foul Drainage

A pre-planning enquiry has been sent to DCWW who have responded positively with an approved point of connection for all foul water from the proposed development. QuadConsult Limited may seek to request a second or alternative connection point following detailed design subject to level checks. The drainage will operate via gravity with no pumping envisaged at this stage. Foul drainage for a community hub has been allowed for in the calculations below.

A S104 application will be made to DCWW for adoption of all the qualifying drainage infrastructure coupled with a S106 application to communicate with DCWW apparatus.

The proposed peak foul flows will be shown below:

Based of SFA 7 th Edition	$\frac{450 \times 4000}{24 \times 60 \times 60} = \mathbf{20.8 \text{ l/s}}$
--------------------------------------	--

Commercial (assumed Coffee shop 8hr) (assume 200 covers)	$\frac{200 \times 15}{8 \times 60 \times 60} = \mathbf{0.04 \text{ l/s}}$
--	---

Supporting correspondence and outline agreement is included in Appendix H.

5.3 Land Drainage

No existing land drainage is evident on the topographical survey and as a result no diversions are envisaged.

5.4 Other Drainage

Existing Private Drainage onsite will be used where possible, this will be subject approvals with the relevant authorities.

6.0 COMPLIANCE WITH NATIONAL SUDS STANDARDS

The following sections detail the design principles that will be incorporated in the development proposals for the scheme, and the measures incorporated to satisfy the requirements for future SAB approval.

6.1 Standard S1 – Surface Water Destination

Priority Level 1 – Reuse of Rainwater

The use of SuDS planters, Rain gardens & Rain Butts are proposed to intercept roof runoff and act as a point of source control. This will allow re-use of rainwater for garden maintenance and create an environment to support diverse landscape planting.

Priority Level 2 – Infiltration to Ground

Preliminary information from SoilScapes indicates a free draining site, although this is not necessarily representative of the current state as it is brownfield. QuadConsult Limited would recommend infiltration testing post remediation although due to the potential of contaminants and large-scale development, disposal via this method is not thought viable.

Priority Level 3 – Discharge to Water Body

The site currently discharges in part to the River Taff and QuadConsult Limited propose to re-use this outfall following more detailed CCTV Survey. The SAB has agreed this proposal is principal.

Priority Level 4 – Discharge to Surface Water Sewer, Highway Drain, or other System

The lower catchment is proposed to connect into an existing SWS currently being used.

Priority Level 5: Discharge to a Combined Sewer

Discharge to combined sewer is not required as priority levels 3 and 4 can be met.

6.2 Standard S2 – Surface Water Runoff Hydraulic Control

It is proposed that the attenuation system (detention basin possibly with base infiltration) be designed such that it is sufficient to store critical storm duration flows in the 100yr+40% event. Calculations are appended (Appendix I). Presently, there have been no reductions made to the sizing of the attenuation to reflect reductions afforded by the rain gardens or operation of the SuDS planters. An allowance of 10% increase in impermeable catchment has also been included to accommodate urban creep where applicable. Flow rates as agreed with the SAB will be controlled via bespoke hydrobrakes. Proposed drainage schematics are included in Appendix J.

First 5mm Interception

Interception mechanisms will be required to ensure compliance with the requirement of zero runoff for the first 5mm rainfall for 80% of storm events during the summer and 50% in winter. The provision of SuDS planter features and rain gardens along with flows through permeable drive subbase will contribute to the objective of first 5mm interception.

Exceedance/Blockage

Any exceedance flows will follow surface topography. The topography is such that any excess flows will be directed in a south-westerly to south direction towards the green corridor and then back to the main highway.

6.3 Standard S3 – Water Quality

The proposed SuDS treatment train devices (SuDS planters, Rain Gardens, Permeable paving, and detention basin) will deliver the required cleansing and filtration of runoff for this residential (low pollution hazard level) development.

6.4 Standard S4 – Amenity

The soft SuDS features (Raingardens, swales and bioretention strips) will be carefully designed and integrated into the landscaping scheme for the development, to promote aesthetics and well-being as well as any designed drainage function.

6.5 Standard S5 – Biodiversity

The soft suds features (SuDS planters and Rain Gardens) will be carefully designed with gradients/profiles, planting species and soil properties selected to ensure suitable habitat is delivered to promote biodiversity. These proposals will augment the green infrastructure element of the design proposals to demonstrate a robust response to this Standard.

6.6 Standard S6 - Construction, Operation and Maintenance and Structural Integrity

Much of the infrastructure maintenance will be dealt with at a property level as many of the systems employed are contained within a single curtilage application. All the proposed SuDS infrastructure will be in accessible areas for ease of maintenance. The surface water network including any land drainage will be designed to be fully roddable and jettable, with suitably positioned rodding eyes and mini-access chambers.

The SuDS devices are low maintenance surface/shallow items with established regular maintenance regimes.

The proposed design solution has been designed in accordance with the SuDS manual and is generally served by shallow SuDs features and accessible details; there are no inherent safety issues currently identified within the proposed scheme.

The property drainage infrastructure will be managed by the owner/ tenant. The principal issue is the management of the SuDS planters to potential apartment blocks, which primarily involves periodic inspection to check the overflows are clear and ensure the free-flowing operation. These inspections will also serve to monitor the build-up of any silt in the system to facilitate any cleaning required.

The remaining SuDS features in open space such as detention basins, swales and bio-retention strips will be operated and maintained by the SAB in accordance with the agreed schedule.

7.0 SUMMARY & RECOMMENDATIONS

7.1 SUMMARY

The proposed development will follow current Welsh Government, Local Authority, and Welsh Water guidance in relation to drainage strategy. Surface water will be discharged to the River Taff and the existing 'live' storm network using retained connection points. Discharge rates have been agreed with the SAB offering a minimum 50% reduction in peak flows. The surface water network will follow the principles set out the CIRIA SuDs manual (C753) and local SAB requirements. Where appropriate, surface water elements will be adopted by the local authority through the SAB application process.

In order to increase net developable area, QCL have proposed a Hybrid attenuation system which consists of a basin sited above cellular storage. At the time of writing this option is being approved by Merthyr Tydfil CBC SAB.

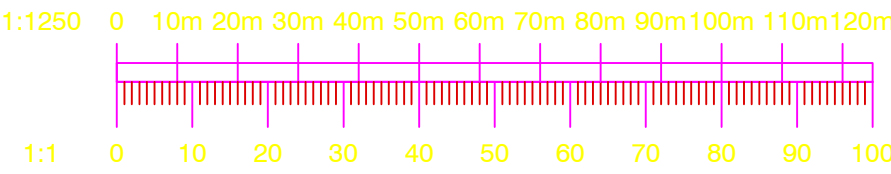
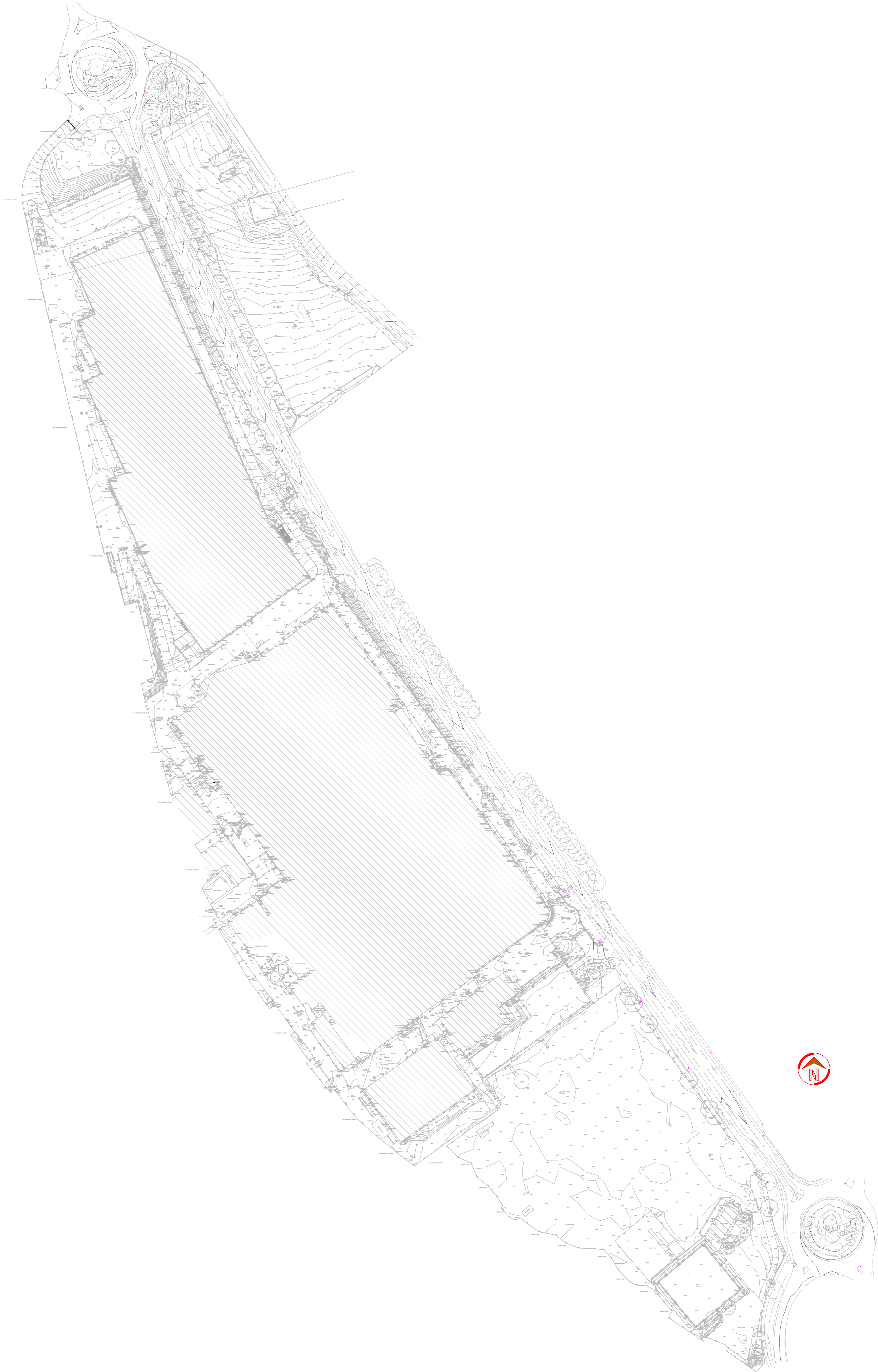
A foul connection point has been agreed with DCWW and capacity exists within the network.

7.2 RECOMMENDATIONS

The following actions are recommended to ensure that a robust suitable site-specific surface and foul water drainage strategy can be implemented to service the proposed development.

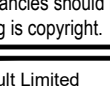
- Jet out lines proposed for re-use and CCTV Survey networks to confirm condition.
- Further investigation of Surface water network to confirm ownership.
- Locate existing outfall into River Taff and obtain level and confirm condition of headwall and any flap valves that may be fitted.
- Determine $Q_{100} + CC$ flood level of the River Taff so that impaction of the site can be assessed if the flap valve seizes open.
- It is QCL opinion that a practical and robust drainage solution can be delivered for discharge of surface and foul water from the proposed development as stated within the report.

APPENDIX A – EXISTING SITE SURVEY



GENERAL NOTES

1. This drawing is to be read in conjunction with and checked against all other drawings, engineering details, specifications and any structural, geotechnical or other specialist document provided.
2. Any discrepancies within all relevant drawings are to be reported to QuadConsult Ltd immediately.
3. All dimensions and levels are in metres, U.N.O.
4. Do not scale from this drawing - use figured dimensions only.
5. This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions.
6. The contractor is to check and verify all buildings and site dimensions and levels, including existing sewer invert levels, before works start on site. The contractor is to comply in all aspects with the current building legislation, British standards, building regulations etc.

Rev	Date	Description	By	
Dimensions to be verified on site. This drawing should not be scaled. Use figured dimensions only. Any discrepancies should be referred to the Engineer prior to work being put in hand. This drawing is copyright.				
QuadConsult Limited Cae'rhyd House, Village Way Greenmoor Business Park Cardiff CF15 7NE 029 2077 9644 connectus@quadconsult.co.uk www.quadconsult.co.uk Consulting Civil & Structural Engineers Offices in Cardiff, Gloucester and Llandyfae 				
Client 				
Project HOOVER SITE MERTHYR				
Title TOPOGRAPHICAL SURVEY				
Drawing Sheet INFORMATION				
Designed by	Drawn by	Checked by	Date	Scale @ A3 size
AV	SLS	AV	OCT 24	1250
Drawing No				
24358-SK-003-0				

APPENDIX B – EXISTING DRAINAGE AND UTILITY SERVICES

Appendix C – C2 Utility Returns

- C2 Utilities - Combined Pack

Our Ref: 23523388 CS/101973 - Hoover Line Search

Monday, 11 October 2021

Scott Galsworthy
St David's House Pascal Close St Mellons

South Glamorgan
CF3 0LW

National Grid House
Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

Electricity Emergency Number:
0800 40 40 90*
*Available 24 hours, 7 days/week.
Calls may be recorded and monitored.
www.nationalgrid.com

Asset Protection
Gas Transmission
National Grid
Warwick
Email: assetprotection@nationalgrid.com

National Grid Electricity – High Risk Response Letter

Dear Sir/ Madam,

An assessment has been carried out with respect to National Grid Electricity Transmission plc's apparatus and the proposed work location. Based on the location entered into the system for assessment the area has been found to be within the High Risk zone from National Grid Electricity Transmission plc's apparatus and **Must Not Proceed** without further assessment by Asset Protection.

Could you please send a works description (including how deep you are excavating) and any plans including any commencement dates to the following email address Box.ETO.PPTENQ@nationalgrid.com.

Failure to provide this information will result in a delay to your works be assessed.

Please do not commence with any works until you have received authorisation and guidance from National Grid.

Please note this response and any attached map(s) are valid for 28 days.

Yours sincerely,

ET Site Visit

Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your activities at this location.

It is your responsibility to ensure that the information you have submitted is accurate and that all relevant documents including links are provided to all persons (either direct labour or contractors) working for you near National Grid Electricity Transmission plc's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to National Grid Electricity Transmission plc (NGET)

This assessment does **NOT** include:

- National Grid's legal interest (easements or wayleaves) in the land which restricts activity in proximity to National Grid's assets in private land. You must obtain details of any such restrictions from the landowner in the first instance and if in doubt contact Asset Protection.
- Recently installed apparatus
- National Grid Gas Transmission plc.
- Apparatus owned by other organisations, e.g. Cadent, other gas distribution operators, local electricity companies, other utilities, etc.

It is **YOUR** responsibility to take into account whether the items listed above may be present and if they could be affected by your proposed activities.

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to National Grid Electricity Transmission plc easements or wayleaves nor any planning or building regulations applications.

National Grid Electricity Transmission plc or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements.

If you require further assistance please contact the Asset Protection team via e-mail (assetprotection@nationalgrid.com) or via the contact details at the top of this response.

Are My Works Affected?

Is your proposal Scheduled Works, Proposed Works, Formal Enquiry or a Formal Planning Application?

Proposed Works

As your works are at a "proposed" stage, any maps and guidance provided are for information purposes only. This is not approval to commence work. You must submit a "Scheduled Works" enquiry at the earliest opportunity and failure to do this may lead to disruption to your plans and works. Asset Protection will endeavour to provide an initial assessment within 28 days of receipt of a Scheduled Works enquiry and dependent on the outcome of this, further consultation may be required.

In any event, for safety and legal reasons, works must not be carried out until a Scheduled Works enquiry has been completed and final response received.

Scheduled Works

Your proposal is in proximity to the National Grid Electricity Transmission plc's apparatus specified within the "Assessment" section, which may impact, and possibly prevent, your proposed activities for safety and/or legal reasons.

You must not commence any work until you have complied with all of the guidance provided and been contacted by all of the teams (if any) listed in the Contact Requirements section.

As set out in the table in the "Assessment" section of this response; in respect of all the apparatus listed you must read and follow all the guidance provided when planning or undertaking any activities at this location. Additionally, for apparatus assessed as having a high potential to be affected, a member of the respective team will contact you within 28 working days.

As your proposed activity is in close proximity to National Grid's Transmission assets we have referred your enquiry/consultation to our Asset Protection team for further detailed assessment. We request that you do not commence work or take further action with regards to your proposal until you hear from us. We will endeavour to contact you within 28 days from the date of this response. Please contact us at assetprotection@nationalgrid.com if you have not had a response within this time frame.

Formal Enquiry

Searches based on your enquiry have identified that there is National Grid Electricity Transmission plc's apparatus in the vicinity of your enquiry which may be affected by the activities specified. National Grid therefore formally objects to these activities pending further consultation.

How to deal with National Grid's objection.

National Grid Electricity Transmission plc is an electricity undertaker for the purposes of Part 1 of the Electricity Act 1989, having statutory powers and duties with regard to the transmission of electricity.

National Grid Electricity is concerned that its property and apparatus will be affected by the proposals contained within the Order and we enclose a plan showing the location of National Grid Electricity apparatus. We are therefore concerned that consent should not be given for the Order without National Grid Electricity apparatus being properly protected.

The Company would wish to have the opportunity to appear at any public local inquiry held into the application for this Order.

We have asked our engineering department to provide you with further details of how National Grid Electricity is affected by the proposals.

Formal Planning Application

Searches based on your enquiry have identified that there is National Grid Electricity Transmission plc's apparatus in the vicinity of your enquiry which may be affected by the activities specified.

Can you please inform Asset Protection, as soon as possible, the decision your authority is likely to make regarding this application.

If the application is refused for any other reason than the presence of apparatus, we will not take any further action. Please let us know whether Asset Protection can provide you with technical or other information that may be of assistance to you in the determination of the application.

We request that you take no further action with regards to your proposal until you hear from Asset Protection. We will contact you within 28 working days from the date of this response. Please contact us if you have not had a response within this timeframe.

Assessment

Affected Apparatus

The apparatus that has been identified as being in the vicinity of your proposed works is:

- Electricity Transmission Overhead Line apparatus.

Requirements

Over Head Lines

BEFORE carrying out any work you must:

(N.B. Works only to be undertaken when contact has been made and response received from Asset Protection)

- Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.
- Contact the landowner and ensure any proposed works in private land do not infringe National Grid Electricity Transmission plc's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- Ensure that all persons, including direct labour and contractors, working for you on or near National Grid Electricity Transmission plc's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' and GS6 – 'Avoidance of danger from overhead electric power lines'. This guidance can be downloaded free of charge at www.hse.gov.uk
- In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

DURING any work you must:

- Comply with all guidance for working within the vicinity of overhead lines as detailed within the guidance documents listed below.
- Comply with all guidance relating to general activities and any specific guidance for each asset type as specified in the Guidance Section below.
- Ensure that access to National Grid Electricity Transmission plc's apparatus is maintained at all times.
- Prevent the placing of heavy construction plant, equipment, materials or the passage of heavy vehicles over National Grid Electricity Transmission plc's apparatus unless specifically agreed with National Grid Electricity Transmission plc's apparatus in advance.
- Exercise extreme caution if slab (mass) concrete is encountered during excavation works as this maybe protecting or supporting National Grid Electricity Transmission plc's apparatus.

Underground Cables

BEFORE carrying out any work you must:

(N.B. Works only to be undertaken when contact has been made and response received from Asset Protection)

- Refer to the attached cable profile drawings which provide details about the location of National Grid's high voltage underground cables.
- Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.
- Contact the landowner and ensure any proposed works in private land do not infringe National Grid Electricity Transmission plc's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- Ensure that all persons, including direct labour and contractors, working for you on or near infringe National Grid Electricity Transmission plc's follow the requirements of the HSE Guidance Notes HS(G)47 "Avoiding Danger From Underground Services". This guidance can be downloaded free of charge at www.hse.gov.uk
- In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

DURING any work you must:

- Comply with all guidance for working within the vicinity of Electricity Underground Cables as detailed within the guidance documents listed below.
- Comply with all guidance relating to general activities and any specific guidance for each asset type as specified in the Guidance Section below.
- Ensure that access to National Grid Electricity Transmission plc's apparatus is maintained at all times.
- Prevent the placing of heavy construction plant, equipment, materials or the passage of heavy vehicles over National Grid Electricity Transmission plc's apparatus unless specifically agreed with National Grid Electricity Transmission plc's in advance.
- Exercise extreme caution if slab (mass) concrete is encountered during excavation works as this may be protecting or supporting National Grid Electricity Transmission plc's apparatus.

GUIDANCE

National Grid Electricity Transmission Network data

- The Network map for National Grid Electricity Transmission assets can be downloaded at the following link in GIS format.

<https://www.nationalgrid.com/uk/electricity-transmission/network-and-infrastructure/network-route-maps>

Buried Cables

- National Grid's underground cables are protected by a Deed of grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. Which provide full right of access to retain, maintain, repair and inspect our asset. Hence we require that no permanent structures are to be built over our cables or within the easement strip.
- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network.
- The supplied detailed route records should not be taken as positive indication of the cable location. This can only be determined by digging trial holes. Where trial holes are dug the concrete and / or polymeric cable protection tiles must not be disturbed.
- The normal recommendation is to keep 2 metres clear either side of the 1 metre wide trench containing the AC cable.
- National Grid should be made aware of the works starting and may put in place a representative to monitor the works. The works should be carried out in accordance with the recommendations in document HS (G) 47 available from the HSE web site.
- The relocation of existing underground cables is not normally feasible on grounds of cost, operation and maintenance and environmental impact and we believe that successful development can take place in their vicinity.
- The information supplied is given in good faith and only as a guide to the location of our underground cables. The accuracy of this information cannot be guaranteed. The physical presence of such cables may also be evident from physical protection measures such as ducts or concrete protection tiles. The person(s) responsible for planning, supervising and carrying out work in proximity to our cable(s) shall be liable to us, as cable(s) owner, as well as to any third party who may be affected in any way by any loss or damage resulting from their failure to locate and avoid any damage to such a cable(s).
- The relevant guidance in relation to working safely near to existing underground cables is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance HS(G)47 "Avoiding Danger From Underground Services" and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Our cables are normally buried to a depth of 0.9 metres to the protective covers but this depth can vary depending on location (bridges may have cables 100mm below surface level)..The specific cable route record drawings show further details along the route of the particular cable. The cable route drawings are attached to this letter for your information.
- Cables installed in cable tunnels, whilst less likely to be affected by surface or shallow works may be affected by activities such as piling.
- National Grid assets can be adversely affected by vibration and can provide guidance on the acceptable levels of vibration due to piling and other construction related operations in the vicinity of national grid assets
- Ground cover above our cables should not be reduced or increased without consultation with National Grid.

National Grid is a trading name for:

National Grid Electricity Transmission plc

Registered Office: 1-3 Strand, London WC2N 5EH

Registered in England and Wales, No 2366977

- If a landscaping scheme is proposed as part of the works, we request that no trees and shrubs are planted either directly above or within 3 metres of the existing underground cable, as ultimately the roots may grow to cause damage to the cable.

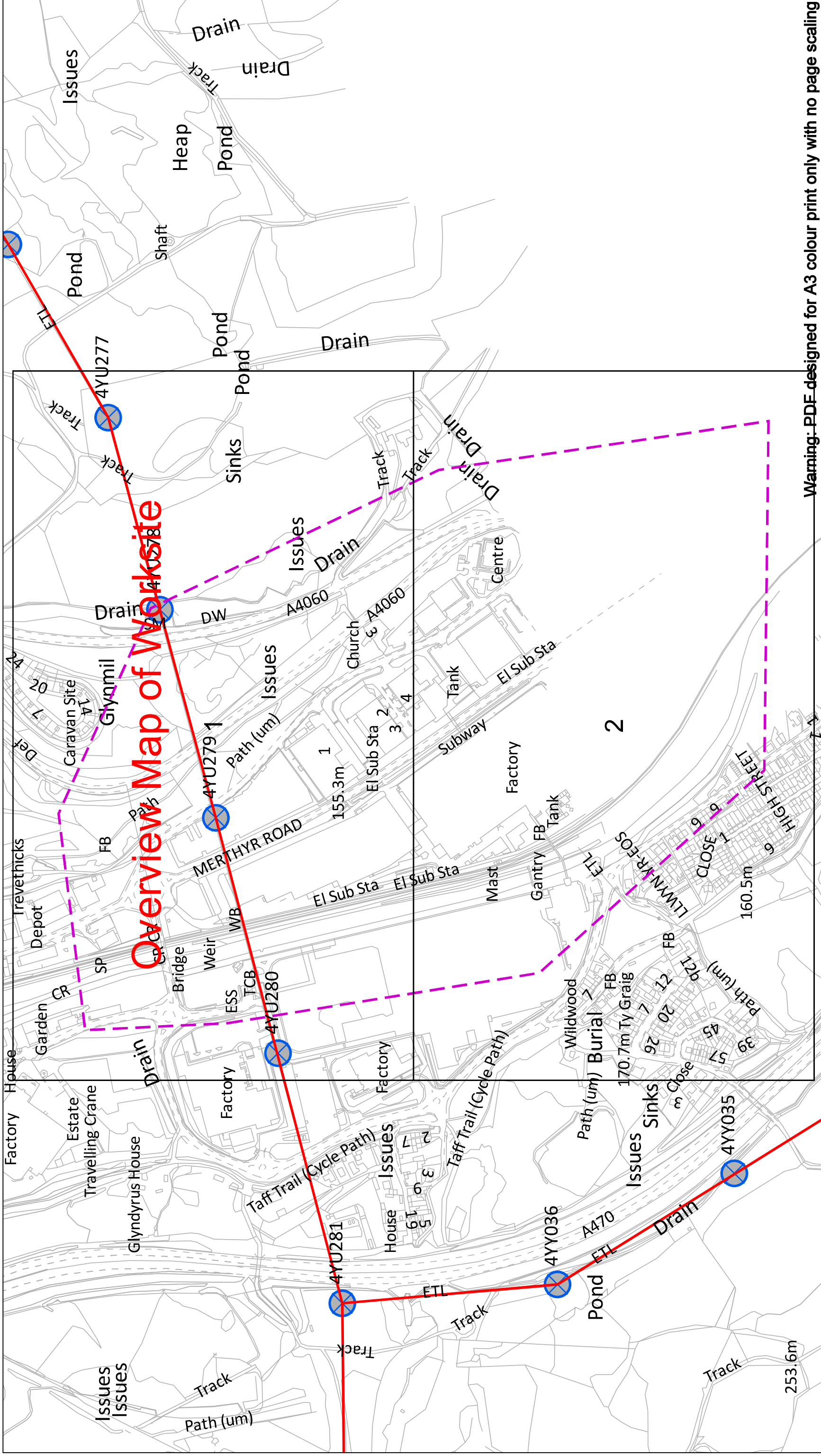
Cables Tunnels

- National Grid's underground cable tunnels are protected by the provisions of a Wayleave/Easement or the New Roads and Street Works Act. This provides full right of access to retain, maintain, repair and inspect our asset.
- Further information and guidance regarding National Grid Cable Tunnels is available on our website at <https://www.nationalgrid.com/uk/electricity-transmission/document/121061/download>
- National Grid requires that the clearances indicated in the guidance document linked above are maintained at all times. Should it be necessary to enter the exclusion zone discussion/ agreement with National Grid is required to ensure the integrity of their tunnel asset and the high voltage cables is not compromised.
- Ground levels above our cable tunnels must not be altered in any way without prior agreement with National Grid; any alterations to the depth of our tunnels can compromise its integrity which could have an adverse impact on the reliability, efficiency and safety of our electricity network.
- Any works which would create high levels of vibration such as piling would need to be assessed by National Grid to ensure it has limited impact on our cable tunnels. National Grid can advise on acceptable vibration limits.

Overhead Lines

- National Grid's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset.
- The submitted proposed design does not change after the date of this letter. Any design change that moves the proposal closer to National Grid Overhead Line Assets shall be submitted for assessment.
- Statutory electrical safety clearances shall be maintained at all times. National Grid recommends that no permanent structures are built directly beneath our overhead lines. These distances are set out in EN 43 – 8 Technical Specification for "Overhead Line Clearances Issue 5 (2019). To purchase & download EN 43 – 8 Technical Specification for "Overhead Line Clearances Issue 5 (2019) go to <https://www.ena-eng.org/ENA-Docs/>
- Any changes in ground levels which are proposed either beneath or in close proximity to our existing overhead lines would serve to reduce safety clearances. Safety clearances to existing overhead lines must be maintained in all circumstances.
- To view the Development Near Overhead Lines Document.
<https://www.nationalgridet.com/document/130626/download>
- To view the National Grid Third Party Guidance for working near National Grid Electricity Transmission equipment.
<https://www.nationalgridet.com/sites/et/files/documents/Working%20near%20electricity%20equipment.pdf>

- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 "Avoidance of Danger from Overhead Electric Lines."
- If a landscaping scheme is proposed as part of the proposal, only slow and low growing species of trees and shrubs shall be planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.
- Drilling or excavation works shall not be undertaken if they have the potential to disturb or adversely affect the foundations or "pillars of support" of our towers. These foundations extend beyond the base of the tower. Pillar of Support drawings shall be obtained using the contact details above.
- Due to the scale, bulk and cost of the transmission equipment required to operate at 275kV or 400kV we only support proposals for the relocation of existing high voltage overhead lines where such proposals directly facilitate a major development or infrastructure project of national importance which has been identified as such by government.
- To promote the successful development of sites crossed by existing overhead lines, and the creation of well-designed places, National Grid has produced 'Design guidelines for development near pylons and high voltage overhead power lines', which look at how to create high quality development near overhead lines and offer practical solutions which can assist in avoiding the unnecessary sterilisation of land in the vicinity of high voltage overhead lines.
- Further information regarding our undergrounding policy and development near transmission overhead lines is available on our website at: <https://www.nationalgridet.com/network-and-assets/planning-and-development>



Warning: PDF designed for A3 colour print only with no page scaling

Warning: PDF designed for colour print only with no page scaling

National Grid Electricity Emergency Number: 0800 40 40 900
Available 24 hours, 7 days/week. Calls may be recorded and monitored

NationalGrid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

**EXTREME CAUTION - HIGH VOLTAGE
RISK OF DEATH OR SERIOUS INJURY**

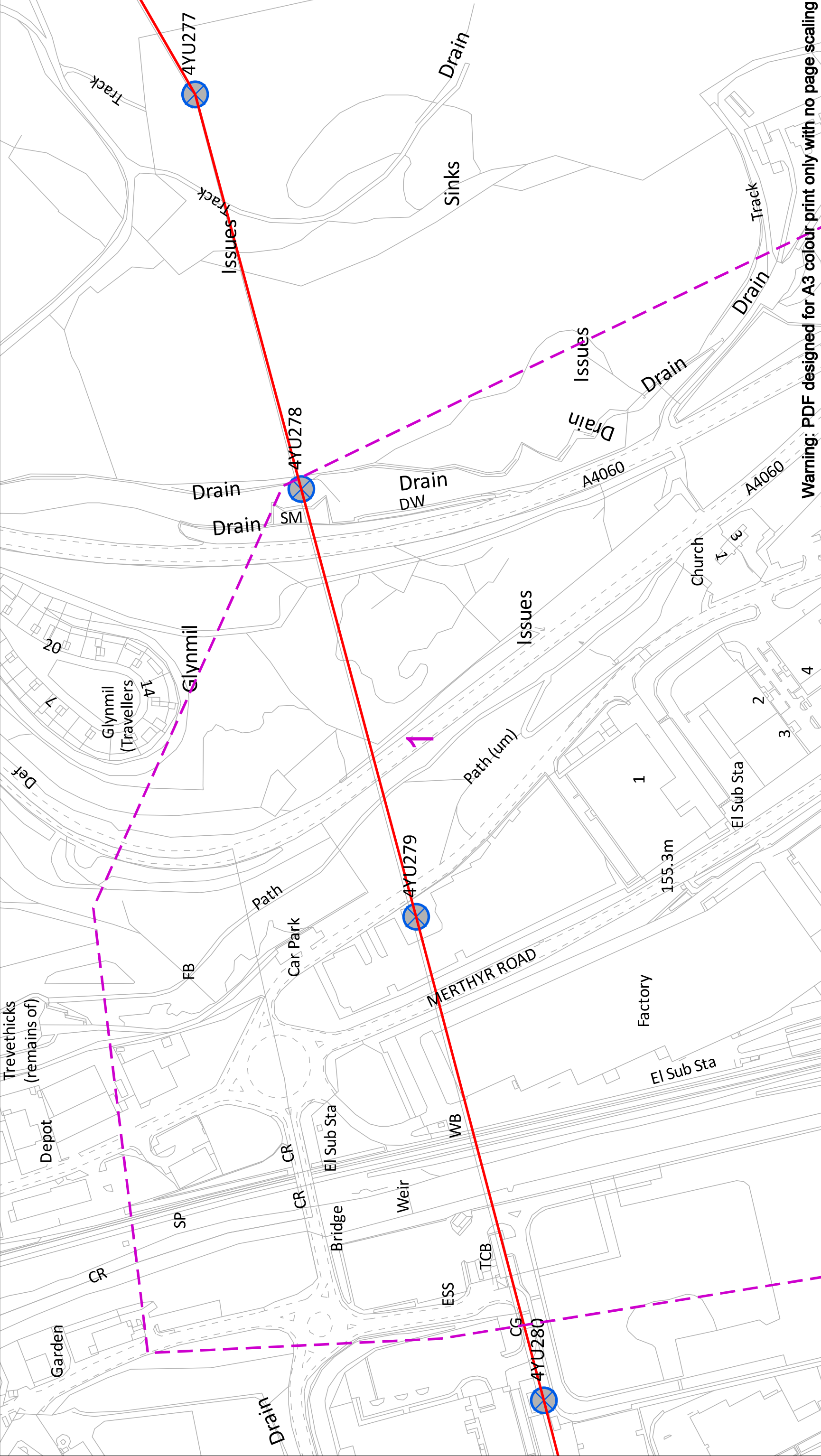
IMPORTANT NOTICES

This plan shows those pipes owned by National Grid Electricity Transmission plc in its role as a Licensed Electricity Transporter (ET). Electricity cables owned by other ETs, or otherwise privately owned, may be present in this area. Information with regards to such cables should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Ancillary equipment such as cooling systems and communication cables are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Electricity Transmission plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HSG147, must be used to verify and establish the actual position of cables and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near the electricity apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Date Requested: 11/10/2021
Job Reference: 23523388
Site Location: 305754 204398
Requested by:
Mr Scott Galsworthy
Your Scheme/Reference:
CS/101973 - Hoover Line
Search

Scale: 1:5125 (When plotted at A3)

© Crown Copyright 2021. All rights reserved. Ordnance Survey Licence number 0100059731



Warning: PDF designed for colour print only with no page scaling



NationalGrid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

AssetProtection@NationalGrid.com

National Grid Electricity Emergency Number: 0800 40 40 90
Available 24 hours, 7 days/week. Calls may be recorded and monitored



Dig Sites	Area:	Line:
	Underground Cables	
	Overhead Lines	
	Fibre Cables	

EXTREME CAUTION - HIGH VOLTAGE
RISK OF DEATH OR SERIOUS INJURY

IMPORTANT NOTICES

This plan shows those pipes owned by National Grid Electricity Transmission plc in its role as a Licensed Electricity Transporter (ET). Electricity cables owned by other ETs, or otherwise privately owned, may be present in this area. Information with regards to such cables should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Ancillary equipment such as cooling systems and communication cables are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Electricity Transmission plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of cables and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near electricity apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Date Requested: 11/10/2021
Job Reference: 23523388
Site Location: 305754 204398
Requested by:
Mr Scott Gaisworthy
Your Scheme/Reference: CS/101973
Hoover Line Search

Scale: 1:2500 (When plotted at A3)

ENQUIRY SUMMARY

Received Date

11/10/2021 11:47

Work Start Date

12/10/2021

Your Reference

CS/101973 - Hoover Line Search

Location

Centre Point: 305754 204398

X Extent:

Y Extent:

Postcode: CF484TU

Map Options

Paper Size: A3

Orientation: LANDSCAPE

Scale: 1:2500

Real World Extents: 872m x 1016m

Enquirer Details

Organisation Name: Capita

Contact Name: Scott Galsworthy

Email Address: scott.galsworthy@capita.com

Telephone: 07800591517

Address: St David's House Pascal Close St Mellons, , South Glamorgan, CF3 0LW

Enquiry Type

Planned Works

Activity Type

Development Projects

Work Types

Commercial/industrial

Notes/Works Description (if supplied)

Drainage and building works on Existing site

Our Ref: 23523324 CS/101973 - Hoover Line Search

Monday, 11 October 2021

Scott Galsworthy
St David's House Pascal Close St Mellons

South Glamorgan
CF3 0LW

National Grid House
Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

Electricity Emergency Number:
0800 40 40 90*
*Available 24 hours, 7 days/week.
Calls may be recorded and monitored.
www.nationalgrid.com

Asset Protection
Gas Transmission
National Grid
Warwick
Email: assetprotection@nationalgrid.com

National Grid Electricity – No Assets Affected

Dear Sir/ Madam,

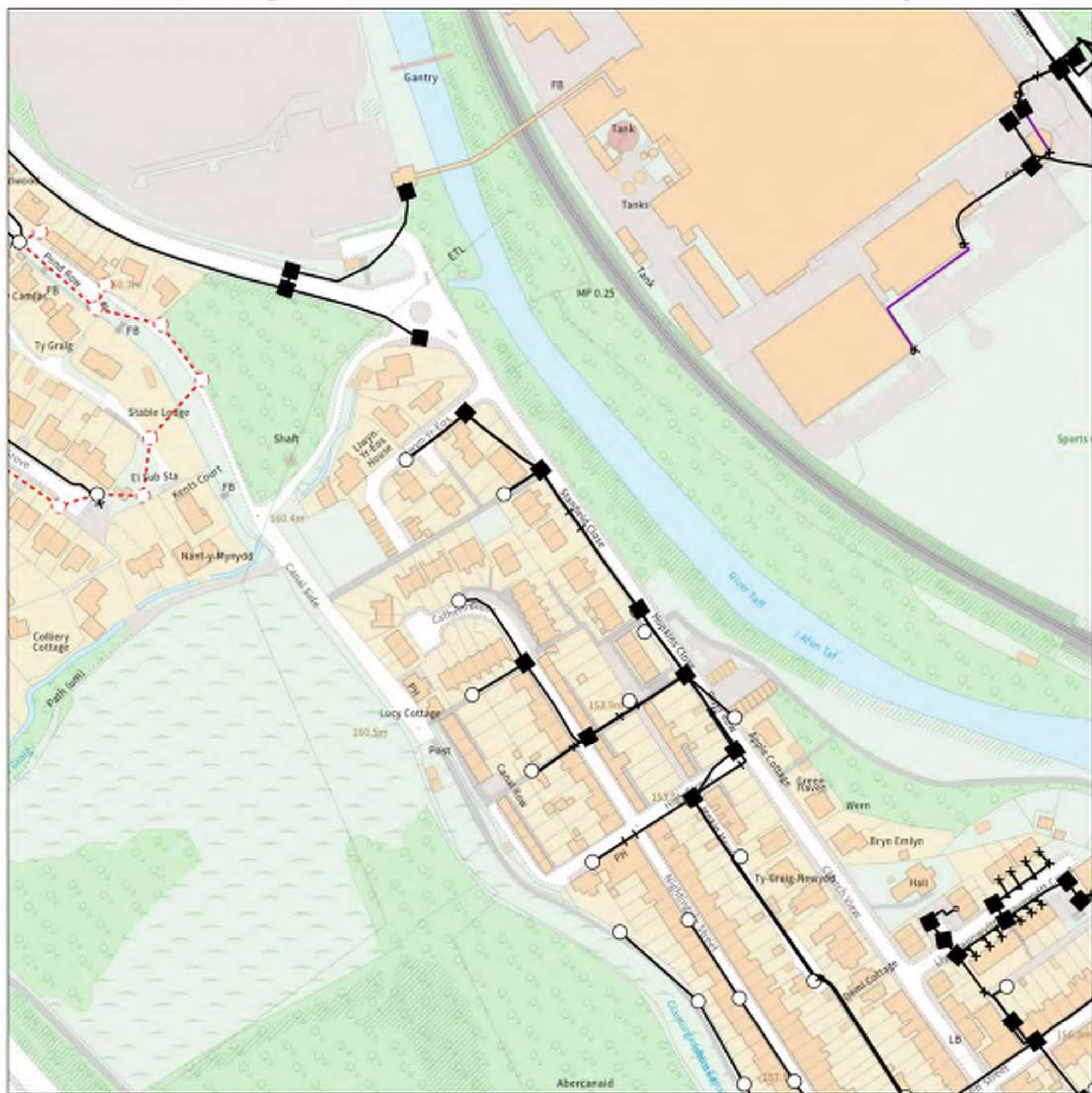
An assessment has been carried out with respect to National Grid Electricity Transmission plc's apparatus and the proposed work location. Based on the location entered into the system for assessment the area has been found to not affect any National Grid Electricity Transmission plc's apparatus.

Please note this response and any attached map(s) are valid for 28 days

Yours sincerely

Asset Protection Team

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

KEY TO BT SYMBOLS

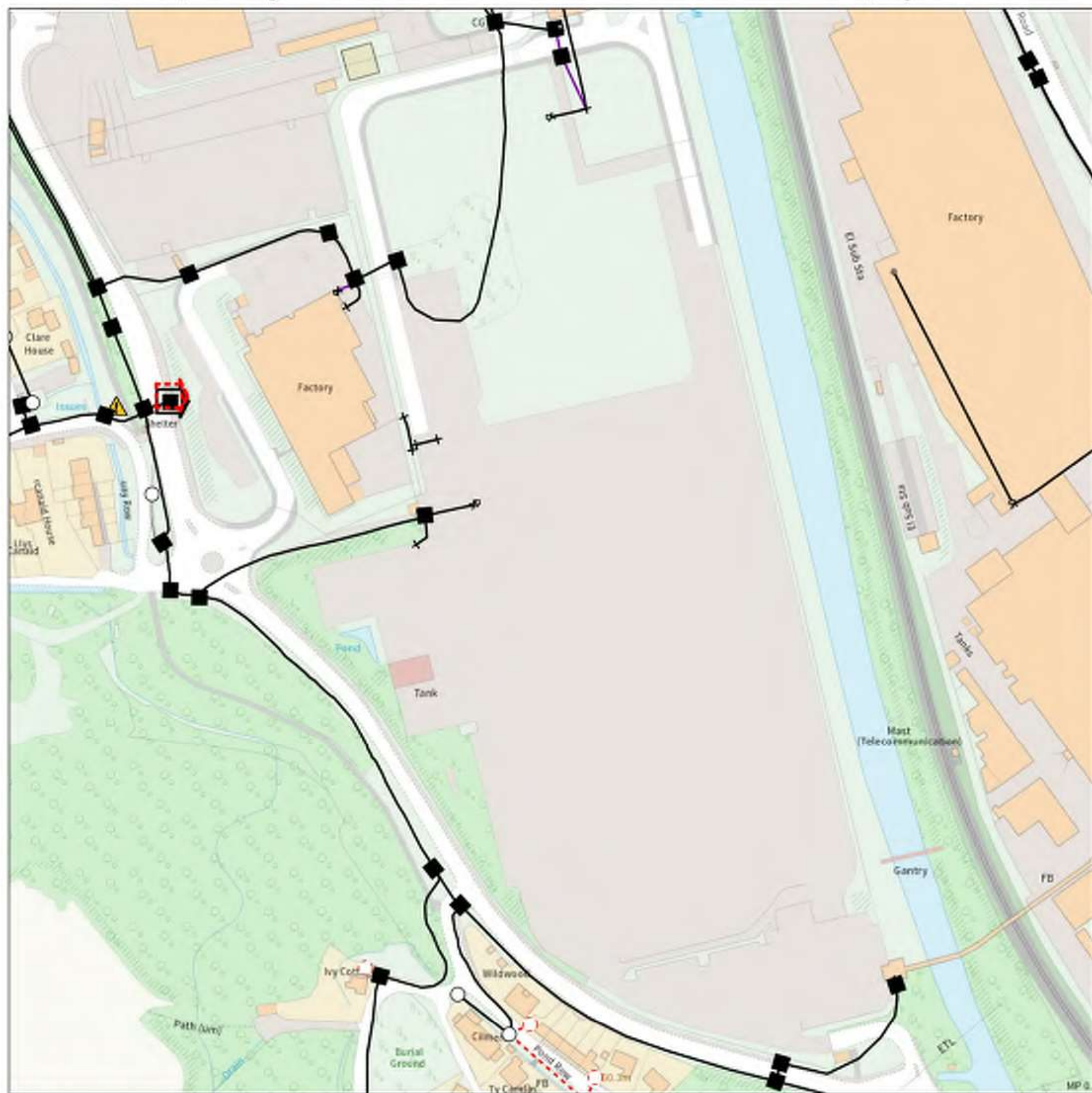
	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling		Built	
Pole			Duct Tee		Planned	
Box			Building		Inferred	
Manhole			Kiosk		Duct	
Cabinet			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information 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		

Reproduced from the Ordnance Survey map by BT by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office
(C) Crown Copyright British Telecommunications plc 100028040

BT Ref : CIC04002V
Map Reference : (centre) SO0565003890
Easting/Northing : (centre) 305650,203890
Issued : 22/02/2022 16:00:13

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



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

KEY TO BT SYMBOLS

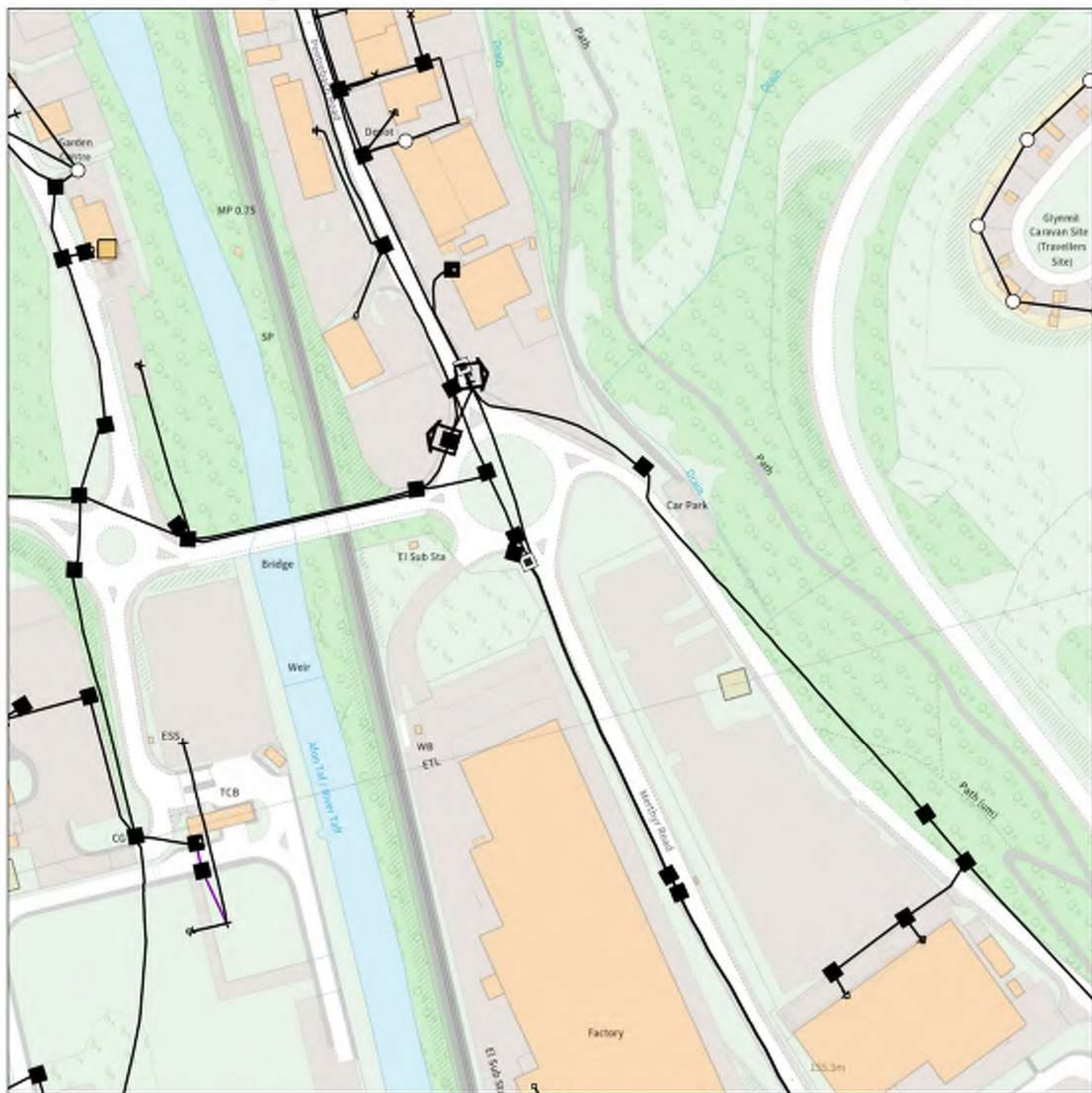
	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling		Built	
Pole			Duct Tee		Planned	
Box			Building		Inferred	
Manhole			Kiosk		Duct	
Cabinet			Other proposed plant is shown using dashed lines. BT Symbols not listed above may be disregarded. Existing BT Plant may not be recorded. Information 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		

Reproduced from the Ordnance Survey map by BT by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office
(C) Crown Copyright British Telecommunications plc 100028040

BT Ref : GEX04372R
Map Reference : (centre) SO0542504255
Easting/Northing : (centre) 305425,204255
Issued : 22/02/2022 16:37:10

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



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

KEY TO BT SYMBOLS

	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling		Built	
Pole			Duct Tee		Planned	
Box			Building		Inferred	
Manhole			Kiosk		Duct	
Cabinet			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		

Reproduced from the Ordnance Survey map by BT by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office
(C) Crown Copyright British Telecommunications plc 100028040

BT Ref : HPI04001B
Map Reference : (centre) SO0559004630
Easting/Northing : (centre) 305590,204630
Issued : 22/02/2022 16:01:03

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



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

KEY TO BT SYMBOLS

	Planned	Live	Change Of State	+	Hatchings	
PCP			Split Coupling		Built	
Pole			Duct Tee		Planned	
Box			Building		Inferred	
Manhole			Kiosk		Duct	
Cabinet			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		

Reproduced from the Ordnance Survey map by BT by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office
(C) Crown Copyright British Telecommunications plc 100028040

BT Ref : IAA03585Y
Map Reference : (centre) SO0572004170
Easting/Northing : (centre) 305720,204170
Issued : 22/02/2022 15:58:55

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

From: Abdul Shukur, Shaik <Shaik.AbdulShukur@atkinsglobal.com>
Sent: 18 October 2021 17:54
To: Galsworthy, Scott (Capita)
Subject: RE: Hoover, Merthyr Tydfil, CF48 4TU

****EXTERNAL****

Please accept this email as confirmation that Vodafone: Fixed **does not** have apparatus within the vicinity of your proposed works detailed below.

Many thanks.

Plant Enquiries Team
T: +44 (0)1454 662881
E: osm.enquiries@atkinsglobal.com



ATKINS working on behalf of Vodafone: Fixed

This response is made only in respect to electronic communications apparatus forming part of the Vodafone Limited electronic communications network formerly being part of the electronic communications networks of Cable & Wireless UK, Energis Communications Limited, Thus Group Holdings Plc and Your Communications Limited.

PLEASE NOTE:

The information given is indicative only. No warranty is made as to its accuracy. This information must not be solely relied upon in the event of excavation or other works carried out in the vicinity of Vodafone plant. No liability of any kind whatsoever is accepted by Vodafone, its servants, or agents, for any error or omission in respect of information contained on this information. The actual position of underground services must be verified and established on site before any mechanical plant is used. Authorities and contractors will be held liable for the full cost of repairs to Vodafone's apparatus and all claims made against them by Third parties as a result of any interference or damage.

IMPORTANT - PLEASE READ:

Diversionary works may be necessary if the existing line of the highway/railway or its levels are altered, where apparatus is affected. Where apparatus is affected and requires diversion, you must submit draft details of the proposed scheme with a request for a 'C3 Budget Estimate' to c3requests@vodafone.com. These estimates should be provided by Vodafone normally within 20 working days from receipt of your request. Please include proof of this C2 response when requesting a C3 (using the 'forward' option).



Please consider the environment before printing this e-mail

From: Galsworthy, Scott (Capita) <Scott.Galsworthy@capita.com>
Sent: 11 October 2021 19:24
To: National Plant Enquiries <OSM.enquiries@atkinsglobal.com>
Subject: Hoover, Merthyr Tydfil, CF48 4TU

Dear Sir/Madam,

I am contacting you on behalf of Redstart/Capita Property & Infrastructure for Rhondda Cynon Taf County Borough Council requesting the location of utilities in the area OS Grid Reference SO 05705 04277. Easting: 305705 , Northing 204277.

Kind regards,

Scott Galsworthy

Senior Technician, Area – Transportation
Real Estate & Infrastructure

Capita St David's House Pascal Close St Mellons Cardiff CF3 0LW

capitaproperty.co.uk

****EXTERNAL****

Please can you resubmit this and all future requests to include:

- the site location address (including postcode if possible) within the subject heading,
- send separate emails for each separate site location,
- 12-digit grid references within the body of the email,
- a site location plan.

If you sent attachments in your original email then you will need to attach them again.

Please re-send to osm.enquiries@atkinglobal.com

Many thanks

Plant Enquiries Team

T: 01454 662881

A: Vodafone Plant Enquiries, c/o Atkins, The Hub, 500 Park Avenue, Aztec West, Almondsbury,
Bristol, BS32 4RZ

This response is made only in respect to electronic communications apparatus forming part of the Vodafone Limited electronic communications network formerly being part of the electronic communications networks of Cable & Wireless UK, Energis Communications Limited, Thus Group Holdings Plc and Your Communications Limited.

ATKINS working on behalf of Vodafone: Fixed



From: Galsworthy, Scott (Capita) <Scott.Galsworthy@capita.com>

Sent: 11 October 2021 13:45

To: National Plant Enquiries <OSM.enquiries@atkinglobal.com>

Subject: FW: Utilities search

Dear Sir/Madam,

I am contacting you on behalf of Redstart/Capita Property & Infrastructure for Rhondda Cynon Taf County Borough Council requesting the location of utilities in the area OS Grid Reference SO 05705 04277. Easting: 305705 , Northing 204277.

Kind regards,

Scott Galsworthy

Senior Technician, Area – Transportation

Real Estate & Infrastructure

Capita St David's House Pascal Close St Mellons Cardiff CF3 0LW

capitaproperty.co.uk

This email is security checked and subject to the disclaimer on web-page:

<https://www.capita.com/email-disclaimer.aspx>

At Atkins - member of the SNC-Lavalin Group, we work flexible hours around the world. Although I have sent this email at a time convenient for me, I don't expect you to respond until it works for you.

NOTICE – This email message and any attachments may contain information or material that is confidential, privileged, and/or subject to copyright or other rights. Any unauthorized viewing, disclosure, retransmission, dissemination, or other use of or reliance on this message or anything contained therein is strictly prohibited and may be unlawful. If you believe you may have received this message in error, kindly inform the sender by return email and delete this message from your system. Thank you.

This message has been scanned by Capita's systems, but if you believe it to be spam then click [here](#) to report this email as spam.

This email originates from outside of Capita.

Keep this in mind before responding, opening attachments or clicking any links. Unless you recognise the sender and know the content is safe.

If in any doubt, the grammar and spelling are poor, or the name doesn't match the email address then please contact the sender via an alternate known method.

This email originates from outside of Capita.

Keep this in mind before responding, opening attachments or clicking any links. Unless you recognise the sender and know the content is safe.

If in any doubt, the grammar and spelling are poor, or the name doesn't match the email address then please contact the sender via an alternate known method.

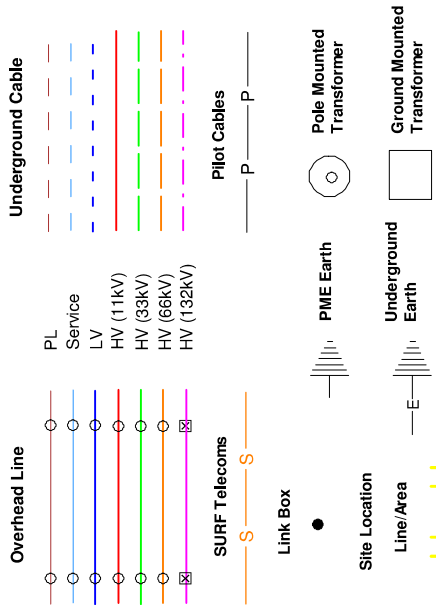


Report damage immediately -- KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

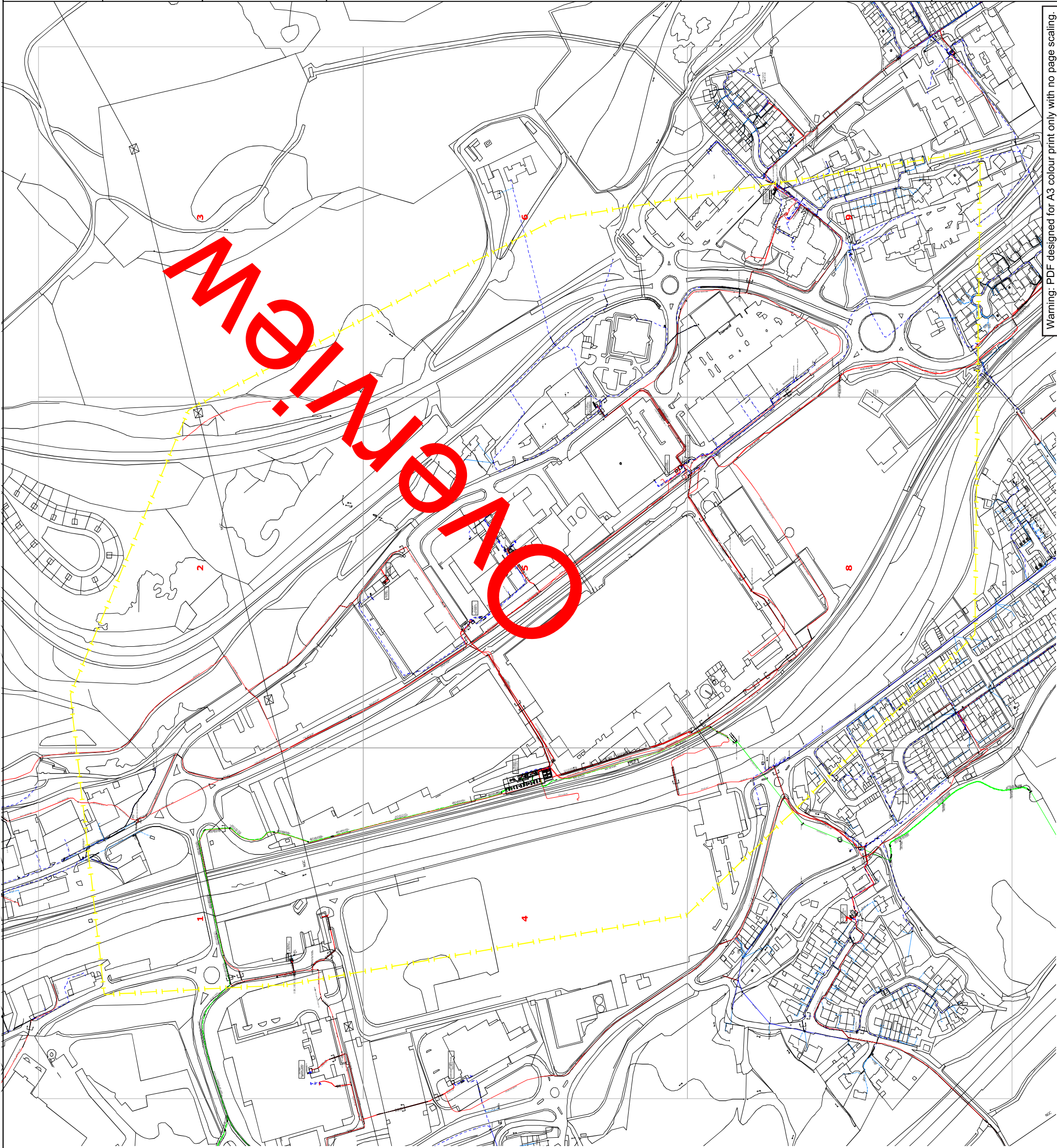
Your Scheme/Reference: CS/101973 - Hoover Line Search

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.

- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080



Crown Copyright © All Rights Reserved. Ordnance Survey Licence
 numbers: 100022488, 100024877 & 100021807.
 WPD Copyright: This copy has been made by or with the authority of
 Western Power Distribution (WPD) pursuant to Section 47 of the
 Copyright Designs and Patents Act 1988 unless that Act provides a relevant
 exception to copyright the copy must not be copied without the prior
 permission of the copyright owner



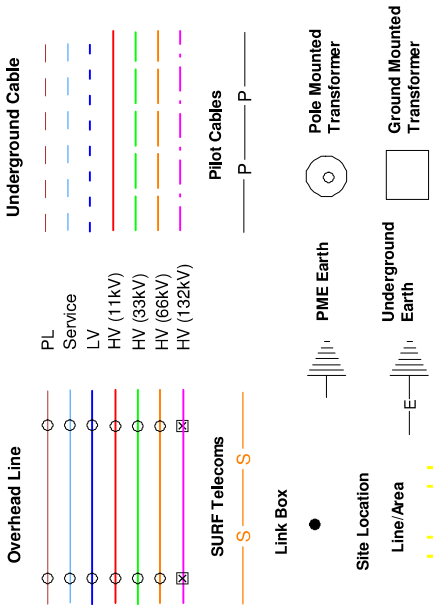
Warning: PDF designed for A3 colour print only with no page scaling.



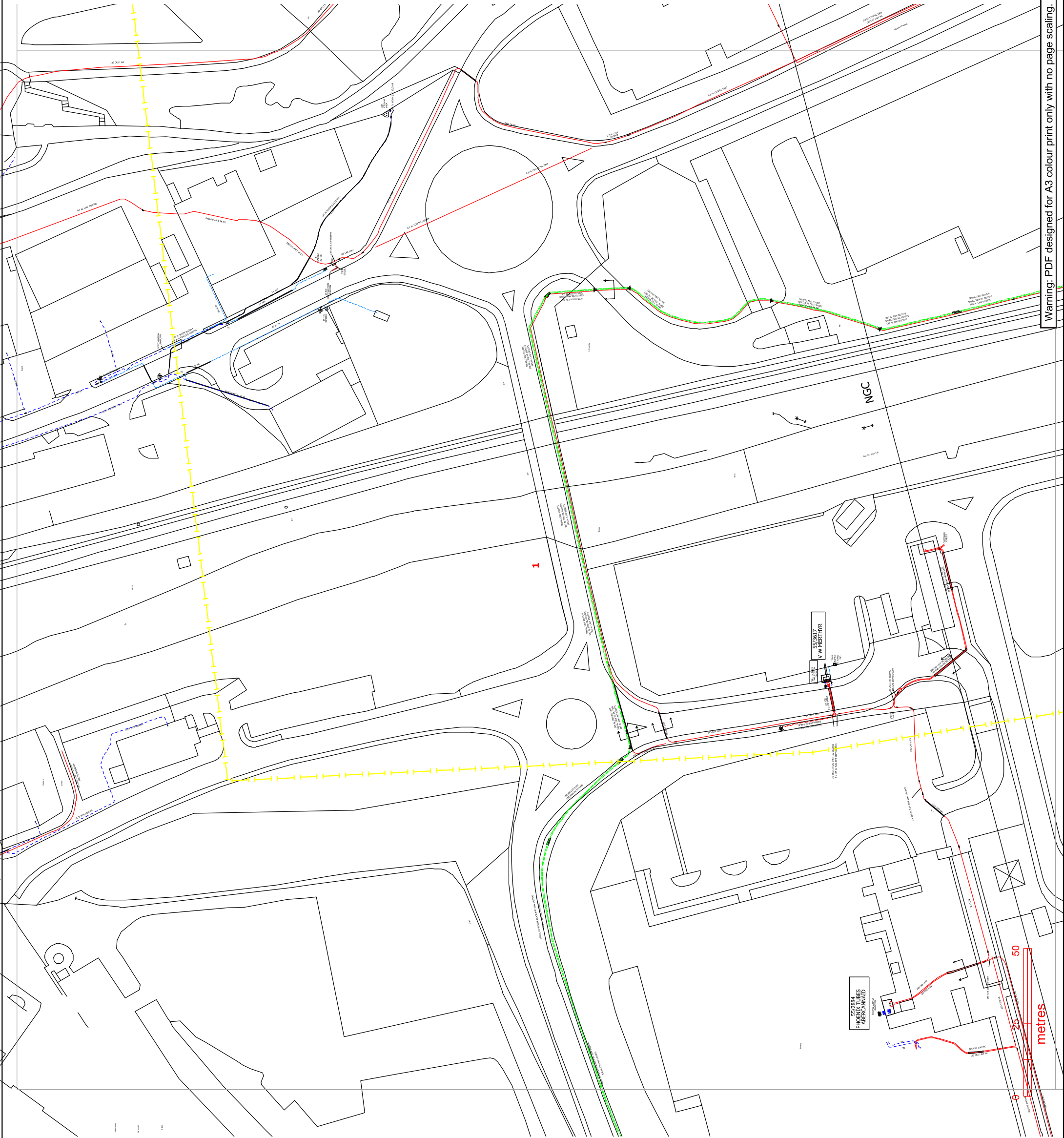
Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

1.E001 no data site

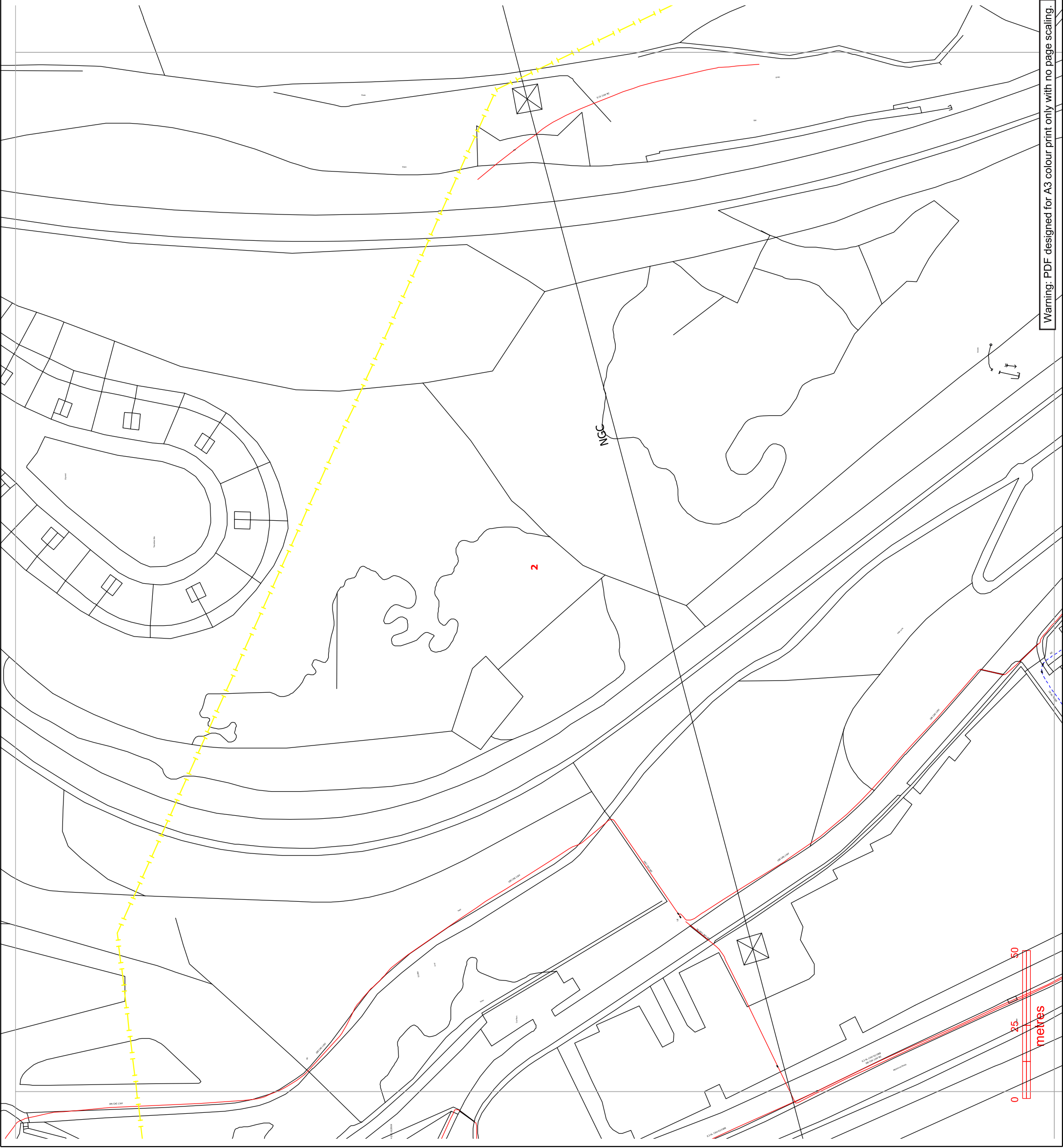
- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power



numbers: 100022488, 100024877 & 100021807.
Western Power Distribution (WPD) pursuant to Section 47 of the
Copyright Designs and Patents Act 1988 unless that Act provides a relevant
exception to copyright the copy must not be copied without the prior
permission of the copyright owner



Warning: PDF designed for A3 colour print only with no page scaling.





WESTERN POWER

DISTRIBUTION

Serving the Midlands, South West and Wales

Contact Us

Mapping Enquiries:
All areas

0121 623 9780

General Enquiries:
All areas

0800 096 3080

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

Date Requested: 11/10/2021

Job Reference: 23523388

Site Location: 305807 204283

Requested by: Mr Scott Galsworthy

Your Scheme/Reference: CS/101973 - Hoover Line Search

Exact Scales:
1:1250 Area or Circle dig site
1:500 Line dig site

IMPORTANT NOTICES

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080

Overhead Line

SURF Telecoms

Link Box

Site Location

Line/Area

Underground Cable

Pilot Cables

Pole Mounted Transformer

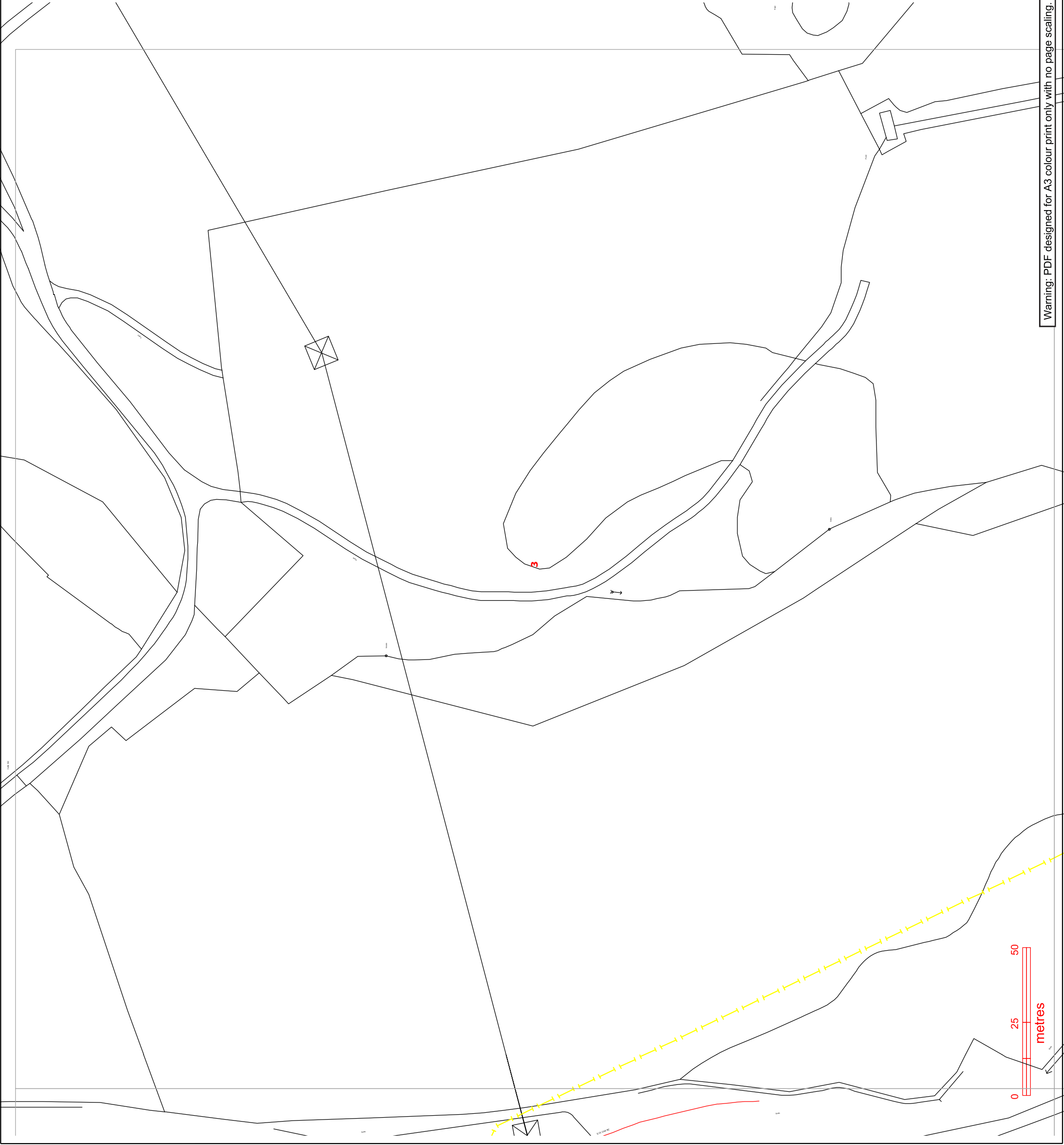
Ground Mounted Transformer

Underground Earth

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: 100022488, 100024877 & 100021807.

WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner

Plans generated by DigSAFE Pro (tm) software provided by LinesearchbeforeUdig



Warning: PDF designed for A3 colour print only with no page scaling.



WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

Contact Us

Mapping Enquiries:
All areas

General Enquiries:
All areas

0121 623 9780

0800 096 3080

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

Date Requested: 11/10/2021

Job Reference: 23523388

Site Location: 305807 204283

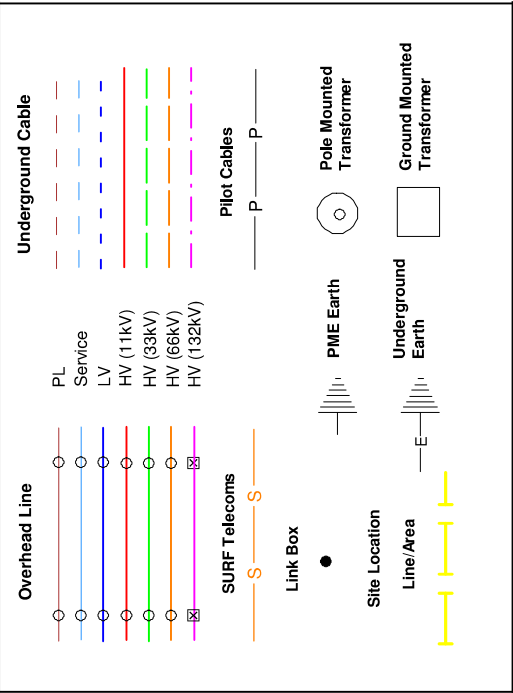
Requested by: Mr Scott Galsworthy

Your Scheme/Reference: CS/101973 - Hoover Line Search

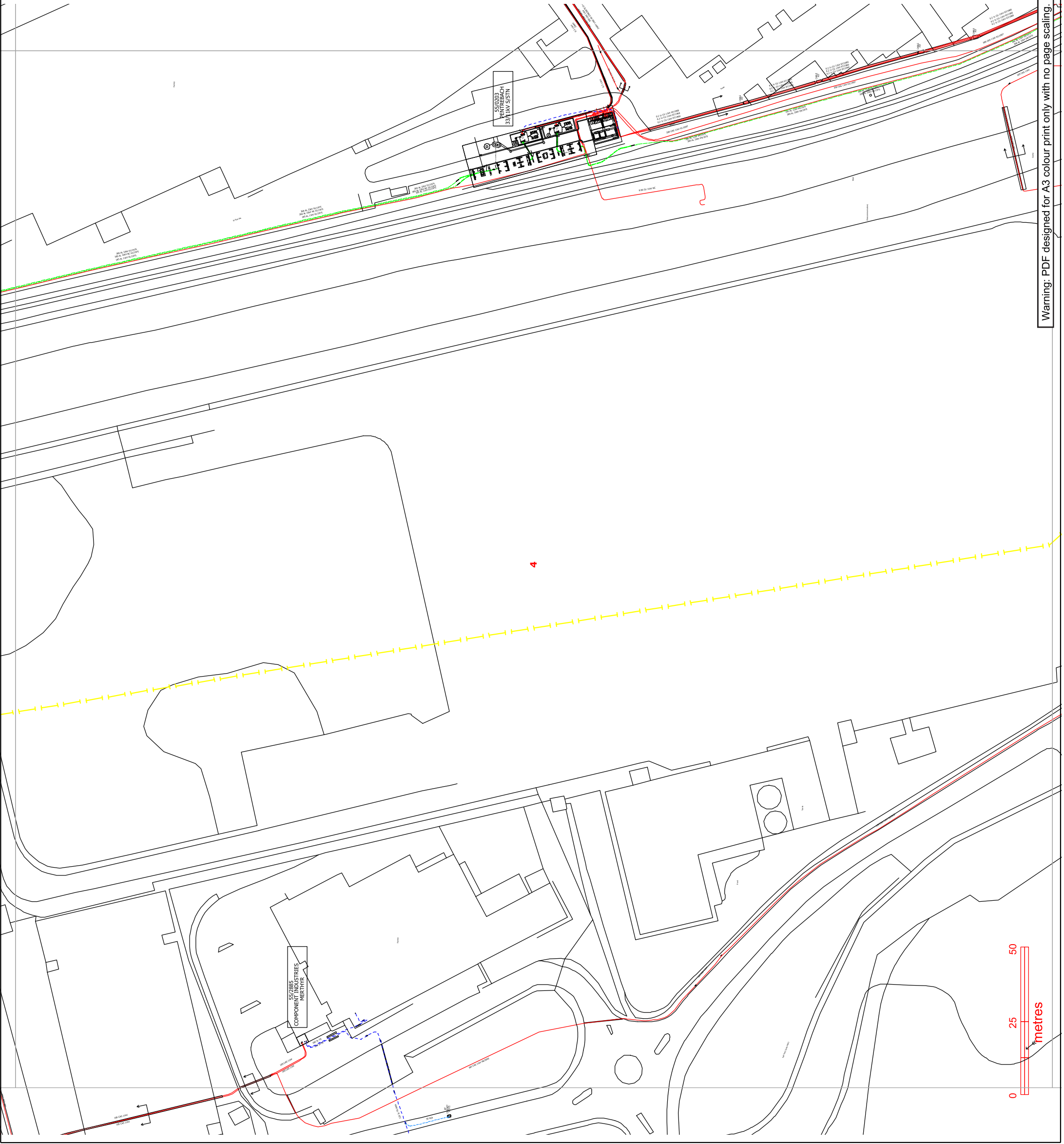
Exact Scales:
1:1250 Area or Circle dig site
1:500 Line dig site

IMPORTANT NOTICES

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080



Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: 100022488, 100024877 & 100021807.
WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner



Warning: PDF designed for A3 colour print only with no page scaling.



WESTERN POWER

DISTRIBUTION

Serving the Midlands, South West and Wales

Contact Us

Mapping Enquiries:
All areas 0121 623 9780

General Enquiries:
All areas 0800 096 3080

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

Date Requested: 11/10/2021

Job Reference: 23523388

Site Location: 305807 204283

Requested by: Mr Scott Galsworthy

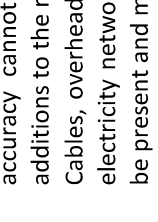
Your Scheme/Reference: CS/101973 - Hoover Line Search

Exact Scales:
1:1250 Area or Circle dig site
1:500 Line dig site

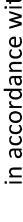
IMPORTANT NOTICES

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080

Overhead Line



SURF Telecoms



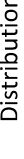
Link Box



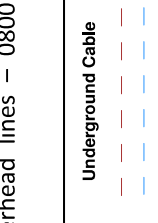
Site Location



Line/Area



Underground Cable



Pilot Cables



Pole Mounted Transformer



Ground Mounted Transformer



Underground Earth



Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: 100022488, 100024877 & 100021807.

WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner

Plans generated by DigSAFE Pro (tm) software provided by LinesearchbeforeUdig



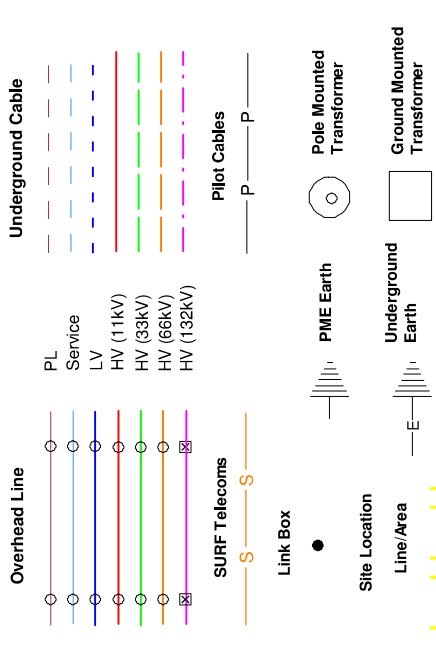
Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

1:500 Line dig site

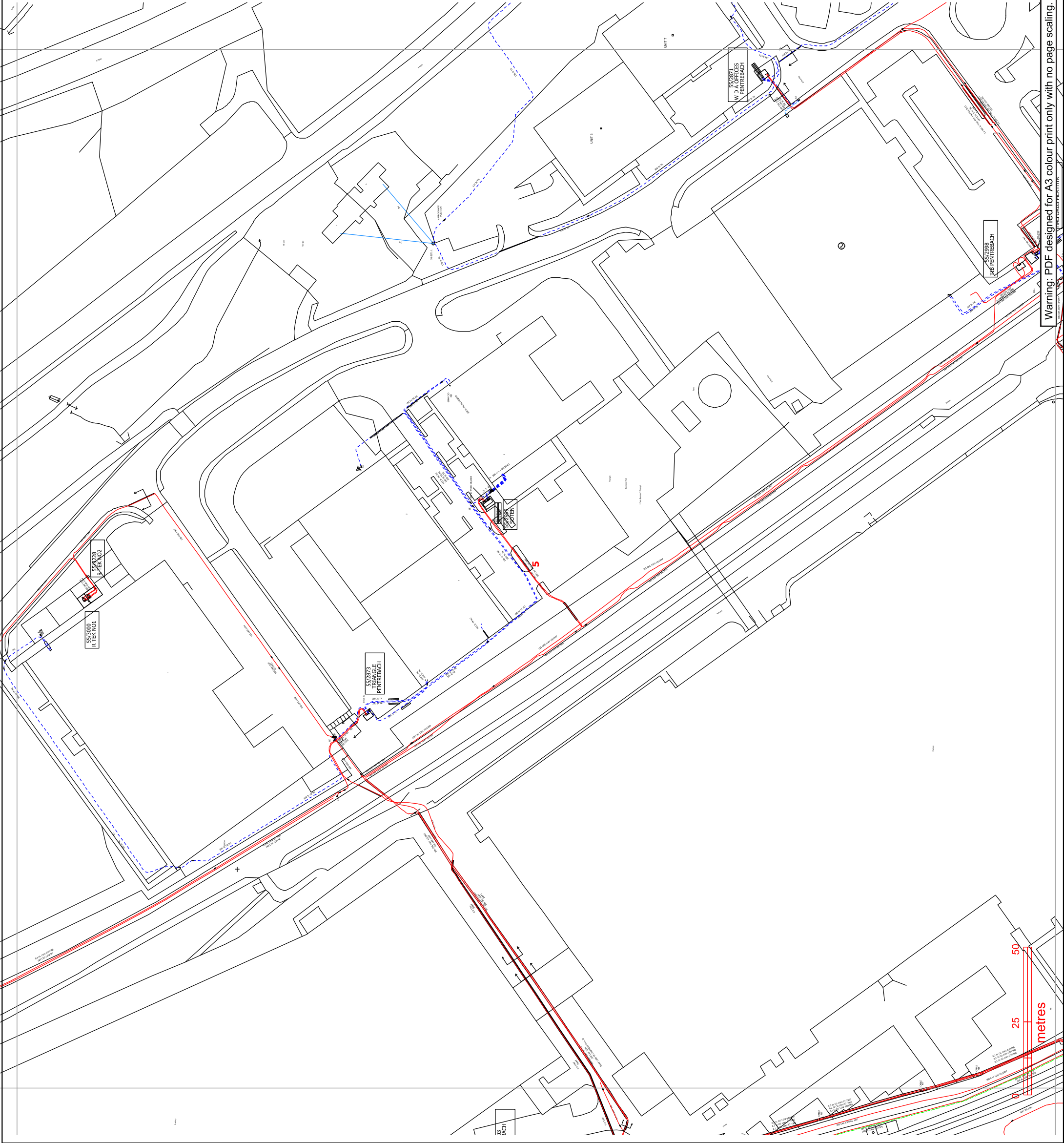
- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.

- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.

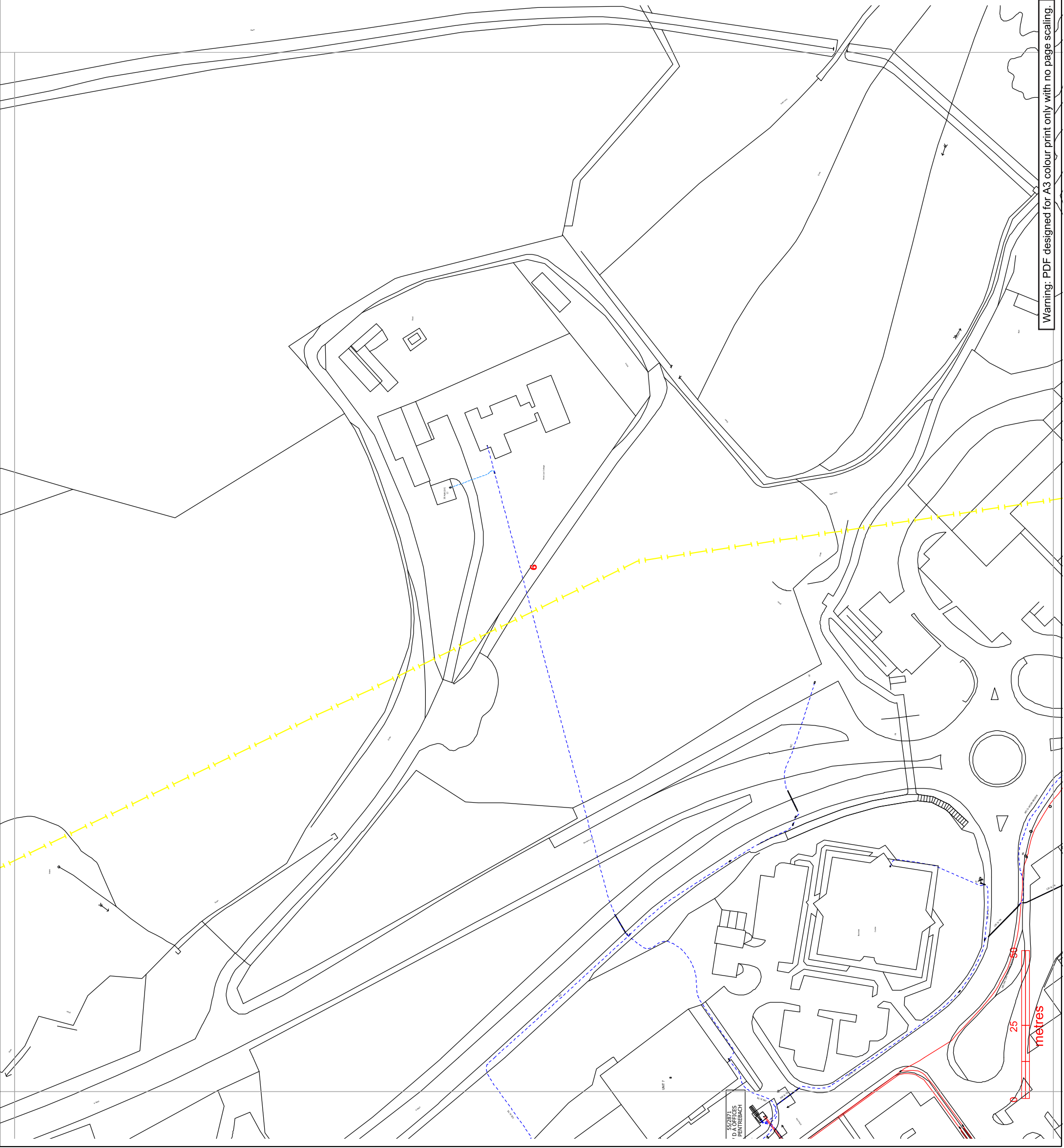
• Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080



Crown Copyright © All Rights Reserved. Ordnance Survey Licence
 numbers: 100022488, 100024877 & 100021807.
 WPD Copyright: This copy has been made by or with the authority of
 Western Power Distribution (WPD) pursuant to Section 47 of the
 Copyright Designs and Patents Act 1988 unless that Act provides a relevant
 exception to copyright the copy must not be copied without the prior
 permission of the copyright owner



Warning: PDF designed for A3 colour print only with no page scaling.





Serving the Midlands, South West and Wales

Contact Us

Mapping Enquiries: 0121 623 9780 All areas

General Enquiries: 0800 096 3080

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

Date Requested: 11/10/2021

Job Reference: 23523388

Site Location: 305807 204283

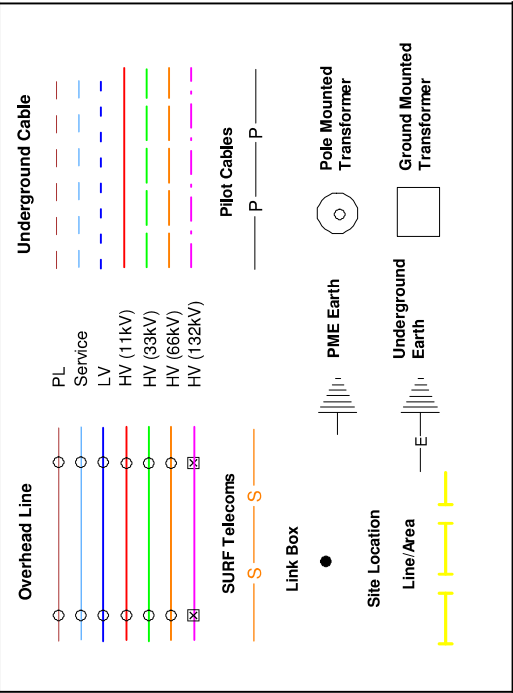
Requested by: Mr Scott Galsworthy

Your Scheme/Reference: CS/101973 - Hoover Line Searchearhead

Exact Scales:
1:1250 Area or Circle dig site
1:500 Line dig site

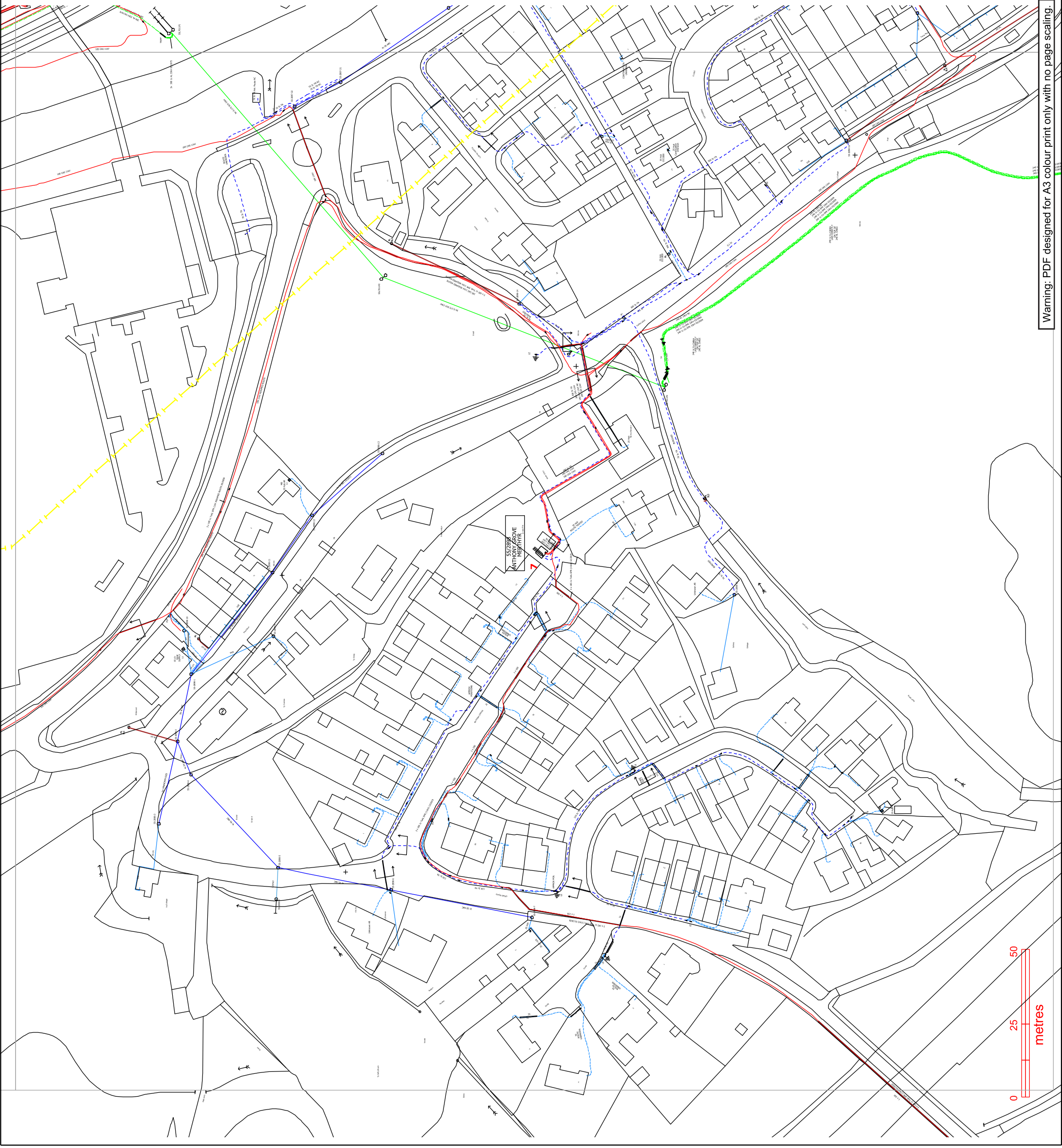
IMPORTANT NOTICES

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080



Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: 100022488, 100024877 & 100021807.

WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner



Warning: PDF designed for A3 colour print only with no page scaling.



WESTERN POWER

DISTRIBUTION

Serving the Midlands, South West and Wales

Contact Us

Mapping Enquiries: 0121 623 9780 All areas

General Enquiries: 0800 096 3080

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA

0800 6783 105

Date Requested: 11/10/2021

Job Reference: 23523388

Site Location: 305807 204283

Requested by: Mr Scott Galsworthy

Your Scheme/Reference: CS/101973 - Hoover Line Search

Exact Scales: 1:1250 Area or Circle dig site 1:500 Line dig site

IMPORTANT NOTICES

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080

Overhead Line

PL Service LV HV (11kV) HV (33kV) HV (66kV) HV (132kV)

Underground Cable

PL Service LV HV (11kV) HV (33kV) HV (66kV) HV (132kV)

Pilot Cables

P P

Link Box

Pole Mounted Transformer

Site Location

Line/Area

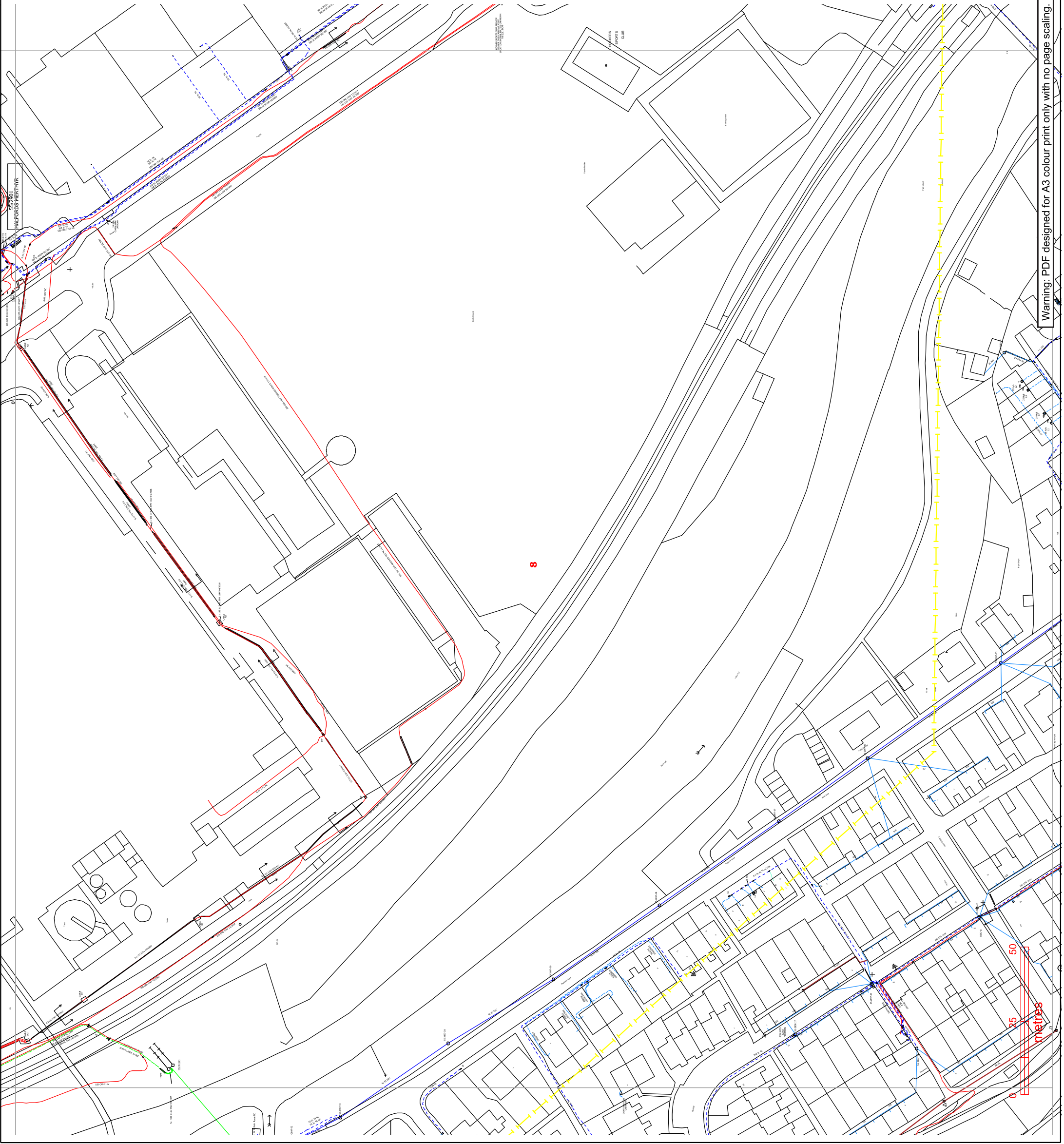
Underground Earth

Ground Mounted Transformer

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: 100022488, 100024877 & 100021807.

WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner

Plans generated by DigSAFE Pro (tm) software provided by LinesearchbeforeUdig





Serving the Midlands, South West and Wales

Contact Us

Mapping Enquiries:
All areas
0121 623 9780
Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

General Enquiries:
All areas
0800 096 3080

Date Requested: 11/10/2021
Job Reference: 23523388
Site Location: 305807 204283
Requested by: Mr Scott Galsworthy
Your Scheme/Reference: CS/101973 - Hoover Line Search
Exact Scales:
1:1250 Area or Circle dig site
1:500 Line dig site

- IMPORTANT NOTICES**
- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
 - Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
 - You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
 - When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
 - For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
 - Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080

Overhead Line
○ PL
○ Service
○ LV
○ HV (11kV)
○ HV (33kV)
○ HV (66kV)
○ HV (132kV)
■ SURF Telecoms
S — S

Underground Cable
- - - PL
- - - Service
- - - LV
- - - HV (11kV)
- - - HV (33kV)
- - - HV (66kV)
- - - HV (132kV)
- - - SURF Telecoms
P — P

Pilot Cables
P — P

Link Box
●

Site Location
○

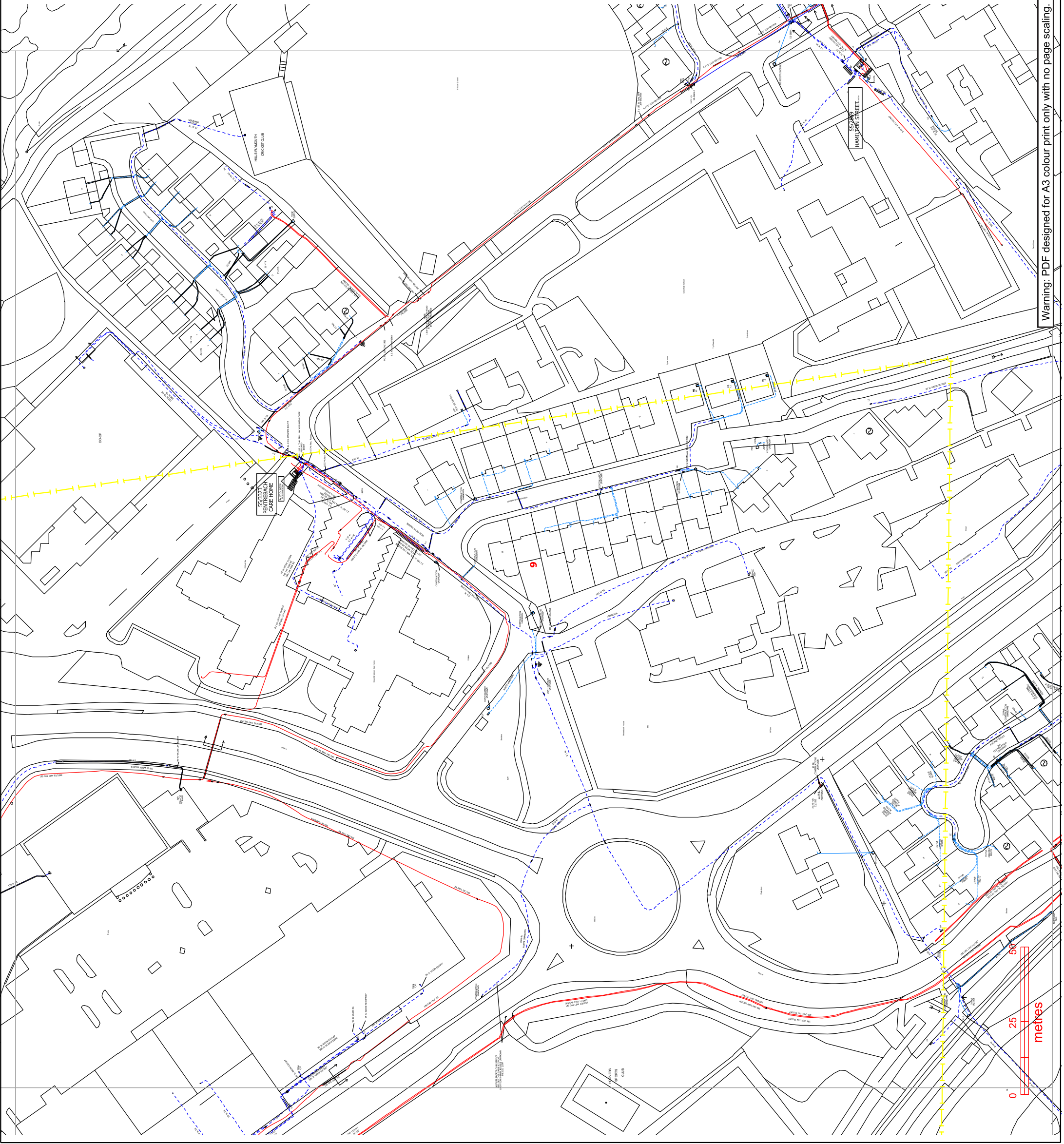
Line/Area
E — E

Underground Earth
E — E

Ground Mounted Transformer
□

Pole Mounted Transformer
○

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: 100022488, 100024877 & 100021807.
WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner



Warning: PDF designed for A3 colour print only with no page scaling.



WESTERN POWER

DISTRIBUTION

Serving the Midlands, South West and Wales

Contact Us

Mapping Enquiries:
All areas 0121 623 9780
Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 6783 105

General Enquiries:
All areas 0800 096 3080

Date Requested: 11/10/2021
Job Reference: 23523388
Site Location: 305807 204283
Requested by: Mr Scott Galsworthy
Your Scheme/Reference: CS/101973 - Hoover Line Searchheadhear
Exact Scales:
1:1250 Area or Circle dig site
1:500 Line dig site

IMPORTANT NOTICES

- This information is given as a guide only and its accuracy cannot be guaranteed. Services or recent additions to the network may not be shown.
- Cables, overhead lines & substations owned by other electricity network owners or private companies may be present and may not be shown.
- You should always verify exact locations of cables using a cable locator and by careful use of hand tools in accordance with HSE guidance note HSG47.
- When working within 10m of any overhead electric line you should follow the requirements of HSE Guidance Note GS6.
- For further advice on working near our electricity cables or lines, call our Contact Centre on 0800 096 3080.
- Advice should be sought from the Western Power Distribution Contact Centre for any work that is to take place in proximity to 66kV or 132kV underground cables and 66kV 132kV overhead lines – 0800 096 3080

Overhead Line
○ PL
○ Service
○ LV
○ HV (11kV)
○ HV (33kV)
○ HV (66kV)
○ HV (132kV)

Underground Cable
— PL
— Service
— LV
— HV (11kV)
— HV (33kV)
— HV (66kV)
— HV (132kV)

SURF Telecoms
— S — S

Pilot Cables
— P — P

Link Box
●

Site Location
○

Line/Area
— E —

Underground Earth
— E —

Ground Mounted Transformer
□

Pole Mounted Transformer
○

Crown Copyright © All Rights Reserved. Ordnance Survey Licence numbers: 100022488, 100024877 & 100021807.
WPD Copyright: This copy has been made by or with the authority of Western Power Distribution (WPD) pursuant to Section 47 of the Copyright Designs and Patents Act 1988 unless that Act provides a relevant exception to copyright the copy must not be copied without the prior permission of the copyright owner



Avoidance of Danger from Electricity Overhead Lines and Underground Cables

Avoidance of Danger from Electricity Overhead Lines and Underground Cables

Introduction

In the UK on average, 20 people are killed and 400 people are injured as a result of coming into contact (or close proximity) with electricity overhead lines and underground cables.

Although electric shock is the first thing that people associate with coming into contact with our network, those who have witnessed the effects of damage to our system are shocked by the amounts of heat, light and noise that are the result of an electrical flashover.

In the Midlands, South West and South Wales, Western Power Distribution (WPD) have had to attend to incidents where people have accidentally made contact with one of our live electricity overhead lines or damaged an underground cable and become seriously injured.

A significant number of these accidents occurred whilst people were working in the vicinity of overhead and underground electrical apparatus and this booklet has been produced to provide general guidance on how you and your employees can avoid becoming one of these statistics.

Our Operational Area



PLANNING YOUR WORK.

It makes sense to consider your safety while in the vicinity of our equipment as early in your planning process as possible.

One of the first things you should do whenever you are planning your work is to check whether there is any of our equipment in the immediate vicinity. You should do this whether your work is taking place on public (e.g. highways and footpaths) or on private land.

For instance, take a good look around your site to see if there are any visible overhead lines. You should also bear in mind that we have a very extensive network of underground cables, and we are always happy to supply a plan from our Map Response Team who can be contacted via the following;

Tel: 0121 623 9780

Fax: 0121 623 9223

WPDMapResponse@westernpower.co.uk

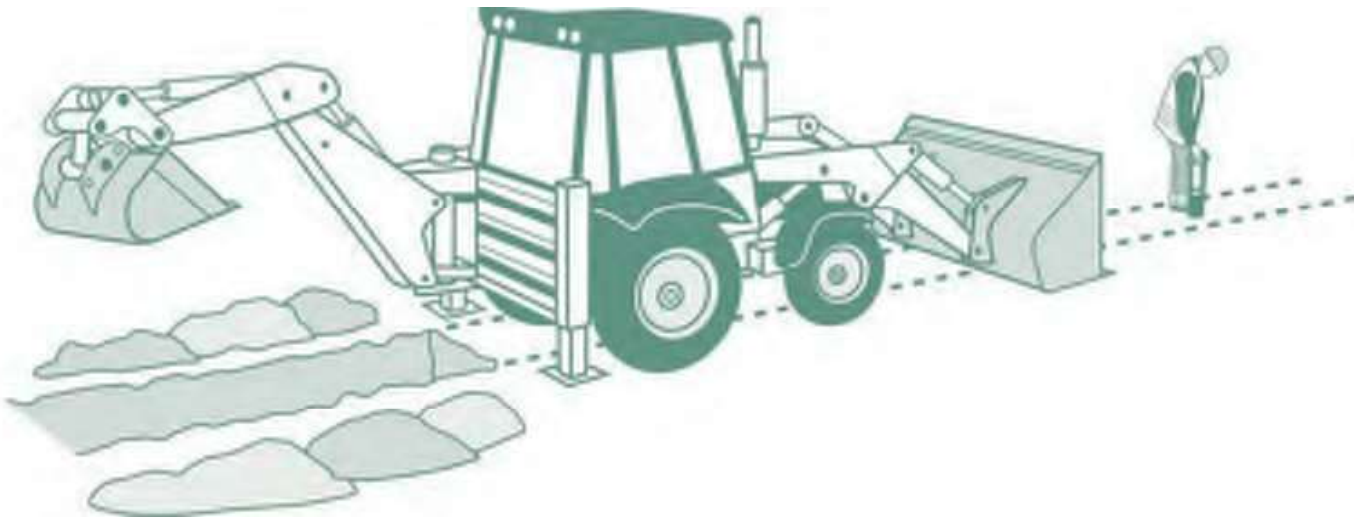
An online mapping service is available at
www.westernpower.co.uk/locationplans

It is always safer to assume that there are underground cables present in the ground until you have proven otherwise.

WORKING IN THE VICINITY OF UNDERGROUND CABLES

Having obtained copies of our network maps, it is important to recognise that in most cases there will be no surface indication of the presence of our underground cables. We therefore advise that you take the following actions:

- Make sure that you have up-to-date copies of our cable record plans ON SITE - not back in the office.
- Don't assume that these plans are to scale if they have been faxed or copied.
- Make sure that a competent person using a Cable Avoidance Tool (CAT) locates all of the cables shown on these plans.
- Mark the locations of cables on the ground surface with waterproof road paint or other permanent marker.
- Always assume that our cables are live unless we have informed you, in writing, otherwise.



- By hand, dig trial holes to locate the exact position of all cables. Always use a spade or shovel – never use a pick, fork or power tool – push the spade or shovel into the ground applying foot pressure.

- Look out for ducts, marker tape or tiles but do not rely on these. Even if a cable route was originally laid in a duct or with a marker tape, these may have been removed during other excavations at a later date along all or part of the cable route.
- Brief all people working in the vicinity of the presence and location of all underground cables.

UNDER NO CIRCUMSTANCES SHOULD YOU ATTEMPT TO WORK ON, OR INTERFERE WITH, ANY OF OUR UNDERGROUND CABLES.

The only people qualified to work on this equipment are our operatives; who have been specifically trained and are authorised in writing to do so.

Please also be aware that:

- Cable record plans are not guaranteed to be completely accurate. Kerb lines, roads and buildings may have been moved or altered since the cables were laid.
- Cables should ordinarily be at least 450mm deep but don't assume this to be the case where you are working – ground levels could have changed.
- Not all service cables are shown on record plans, so look for cables running down poles and bear in mind that all buildings, street lights and street furniture are likely to have cables running to them. Cables feeding street furniture may be relatively shallow near to the furniture.
- Cables do not run in straight lines. They often “snake” through the ground avoiding surface and buried obstacles that may not be visible to you.
- Cables are flexible and can change direction and depth abruptly – for this reason never use mechanical excavators within 0.5m of any underground electricity cable even if you have located it with trial holes.

- **No attempt should be made to break out concrete surrounding a cable. Please contact us immediately on our general enquiries number and we will discuss the options for safe working which may include making the cable dead or you moving your work site if possible. If we need to make the cable dead we may need to provide our customers with two weeks notice of the power interruption.**
- Our cables and joints are not designed to act as steps or to be left unsupported. If you remove support from any cable, you will need to support it using temporary hangers at not more than 0.5m intervals.
- When backfilling, please consolidate the ground under the cables, cover the cable with soil free of stones or with stone dust and replace any cable marker tiles, ducts and tape.

IF YOU DAMAGE AN UNDERGROUND CABLE

you must immediately clear the area of personnel, because the cable could still be live, or become live again.

If a machine is still in contact with the cable, instruct the driver to JUMP clear. Do not touch any part of the machine.

Please contact us on our emergency number immediately and tell us what has happened. Please be ready to provide us with a contact telephone number and an accurate location or set of directions – this will help us in getting our staff to site quickly to minimise any danger and lessen the disruption to your work.

Please report any damage to a cable, however superficial it might seem. The cable may not fail at the time of damage, but it could fail later, causing danger to our staff and other contractors, disruption to our customers' supplies, and also – if we trace the damage back to you – a very much larger repair bill.

WORKING IN THE VICINITY OF OVERHEAD LINES

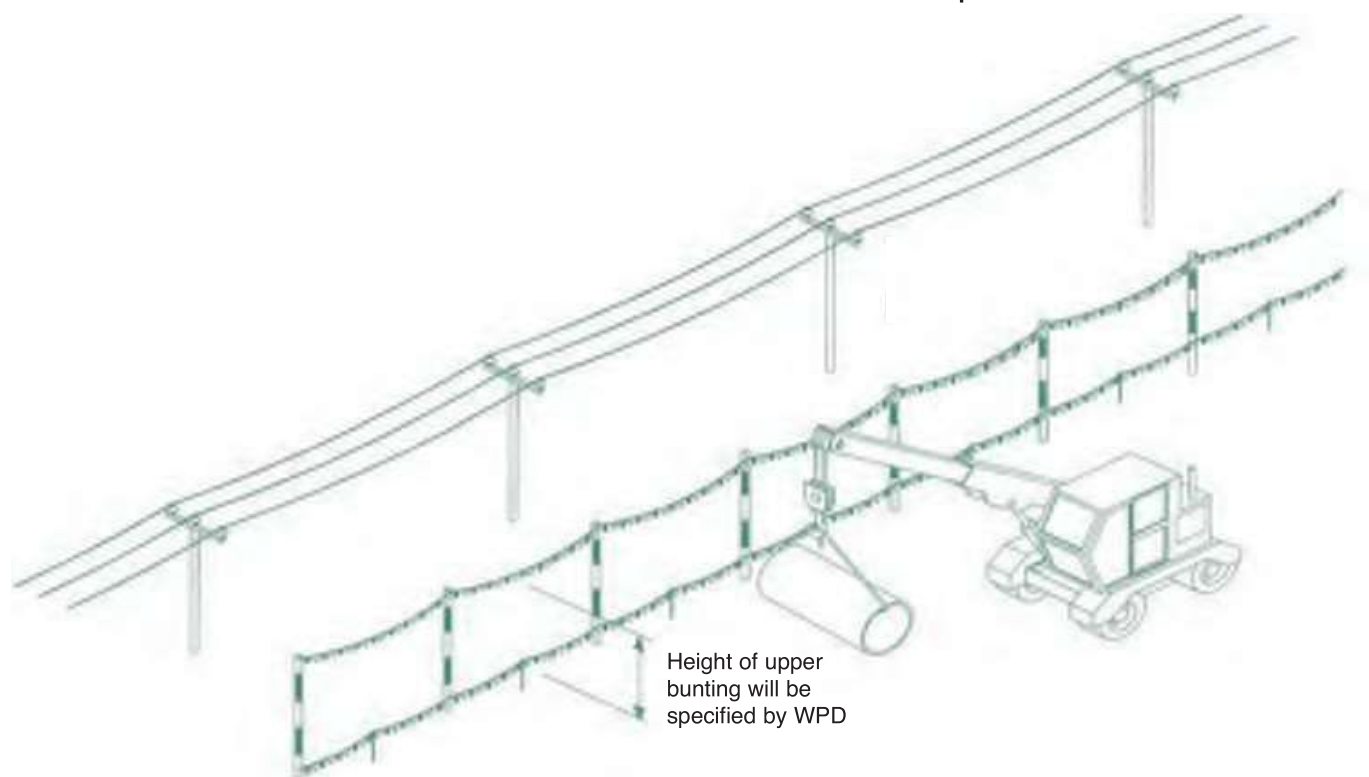
UNDER NO CIRCUMSTANCES SHOULD YOU ATTEMPT TO WORK ON, OR INTERFERE WITH ANY OF OUR OVERHEAD LINE EQUIPMENT OR SERVICE WIRES.

The only people qualified to work on this equipment are our operatives; who have been specifically trained and are authorised in writing to do so.

Overhead lines have the advantage that, unlike underground cables, they can easily be seen.

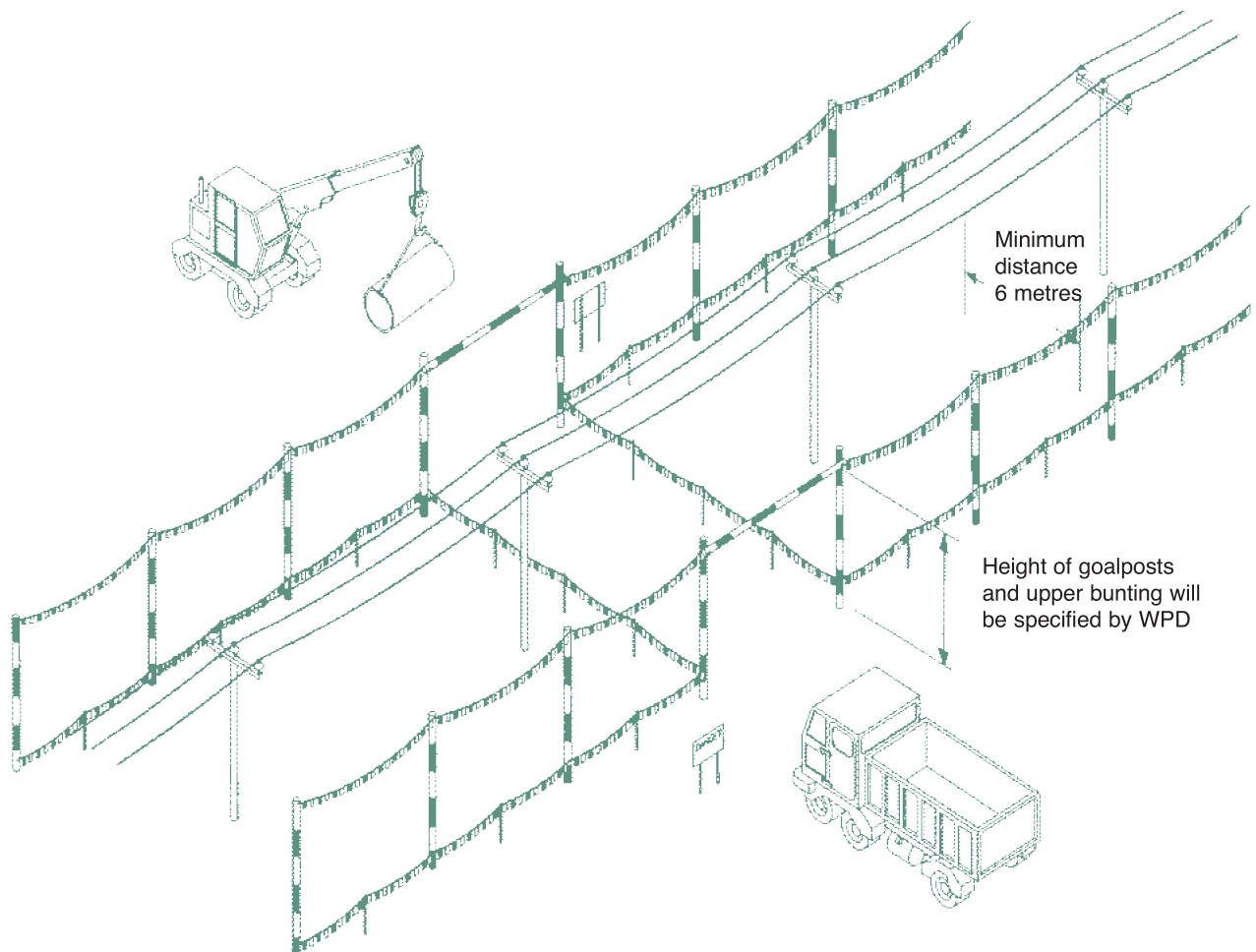
- Always assume that our overhead lines are live unless we have informed you otherwise in writing.
- We will be able to advise you about the type and voltage of the overhead lines in question and provide you with information about the clearances that you must adhere to during your work. Please ring our regional general enquiries number for further advice.
- If you are in any doubt about whether the overhead lines in question are power or telephone (this is a very common mistake) – please ask us.
- In some circumstances, we may be able to temporarily shroud low voltage overhead lines and services running to buildings if you need to work in the vicinity e.g. for scaffolding erection, fascia repairs and painting work on domestic properties. We don't normally charge for the shrouding of overhead lines, but please give us as much notice as possible.
- If you think that you will be working close to our overhead lines and they need shrouding – please don't start work until we have agreed what needs to be done and all safety precautions are in place.
- Please note that it is not technically possible to shroud high voltage lines, so if you cannot avoid working near to our high voltage lines, contact us and we will be happy to meet with you to discuss safe alternatives.

- If it is decided that work can go ahead in the vicinity of our overhead lines but there is a risk of you infringing the safety clearances from the overhead lines, you have a responsibility to erect safety barriers to segregate your works from the area around the overhead lines. The detailed requirements for these barriers are provided in the HSE document GS6 'Avoidance of Danger from Overhead Lines'. As a summary they should consist of:
 - Red and white coloured posts erected at 6m intervals, with coloured bunting stretched between their tops, supplemented by low level bunting erected at 1m above ground level, supported at 3m intervals on red and white coloured posts. This is shown below.



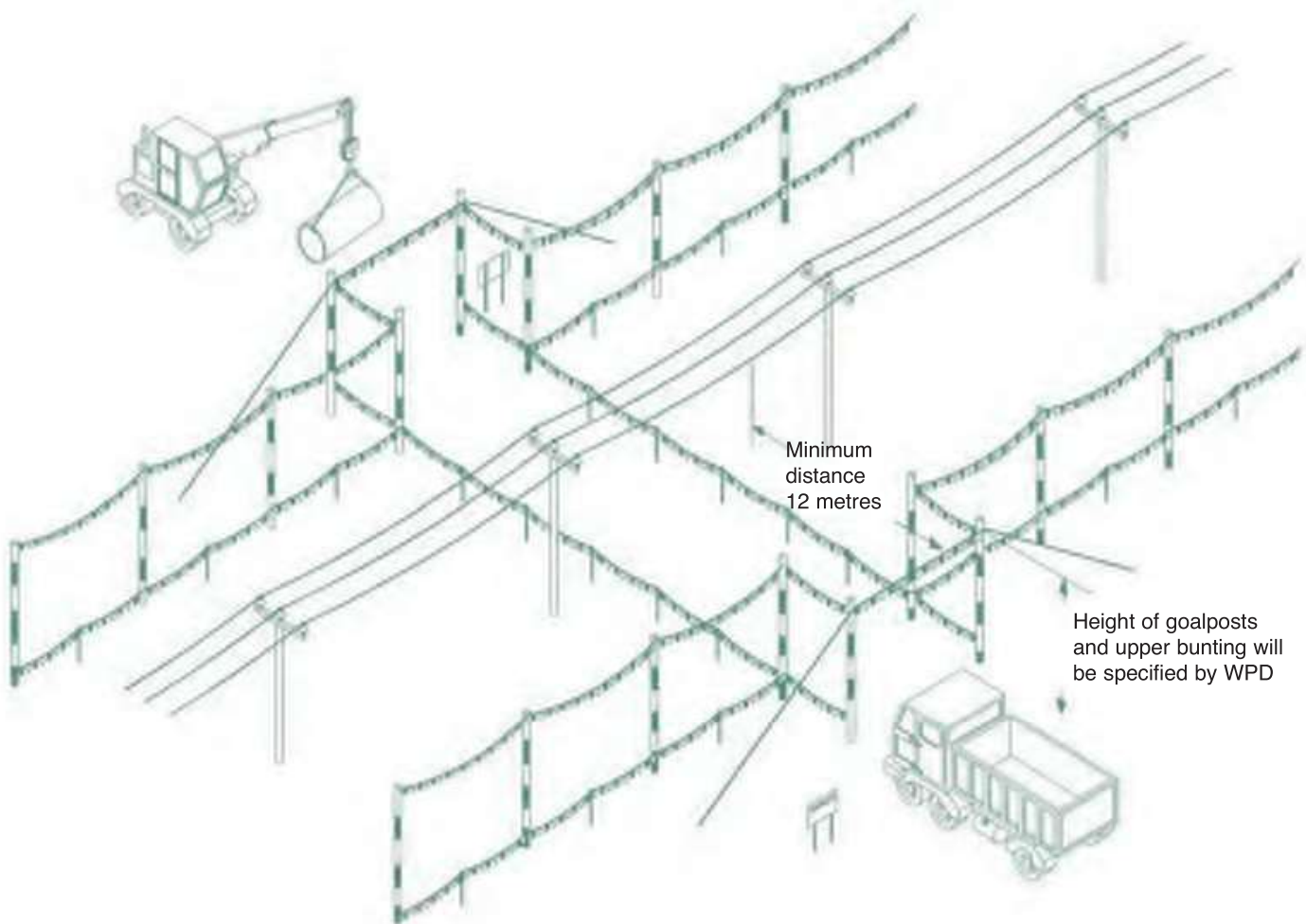
- We are able to advise you on the height of the barriers and any additional clearances necessary if you are using large plant on your site.
- Any bunting, ropes and lanyards used should be made from an insulating material.
- These barriers should be erected parallel to the overhead line at a minimum distance of 6m horizontally from the outermost conductor of the overhead line.

- The supports may be supported by rubble or concrete filled barrels or buried directly in the ground.
- Danger Notices should be fixed to all of your high level supports.
- The ground enclosed within these barriers is best regarded as “dead ground” in which all foot and vehicular traffic is forbidden, in all circumstances, for the duration of your work.
- Where it is necessary for foot and vehicular traffic to pass under the line, you will need to form a marked access way between the barriers as shown below.



- This access way should comprise of bunting erected 1m above ground, supplemented by high level “goal-posts” erected at either end.
- The goal post cross bars should be rigid, made of insulating material and positioned in a location and at a height specified by us.

- The access route should be as narrow as possible and should not normally exceed 10m in width.
- If it is necessary to make the access route wider than this, you may find it impractical to use rigid cross bars, so you may use a tensioned rope and bunting instead. If you use rope and bunting as a cross bar, you should move the entrance to the access route out to a minimum distance of 12m from the outermost conductor of the line. This is to allow for any stretching of the rope if pulled by your plant.



- If you decide to use steel wire rope to support the barrier, this must be effectively connected to earth at both ends.
- You should also install Danger Notices at all probable directions of approach and clearly display the cross bar height.
- If you are working at night, or in conditions of poor visibility, you should ensure the area is well lit and that the overhead lines are clearly visible.
- Whatever measures you take, you should ensure that everyone working in the vicinity of overhead lines is briefed about the risks and what safety measures are in place. Do not permit anyone to carry long objects, especially scaffold poles, ladders and irrigation pipes in the vicinity of overhead lines.
- You should ensure that all shrouding, barriers and signs are regularly inspected and maintained so that they remain effective.
- Overhead lines are not normally insulated and electricity at high voltages may jump, so a dangerous situation can arise just from a close approach.
- Cranes and excavators working near overhead lines are at increased risk because of the possibility of the jib/arm slewing or being raised into the overhead line, or the load swinging into the overhead line. You may therefore also need to fit plant and vehicles with restricting chains etc. to physically restrain their operation – we can advise on this if you wish.
- If you are planning to carry out tree cutting or arboriculture work in the vicinity of our overhead lines, you need to be aware that this is a complex, high risk activity and we recommend that you employ a competent tree surgeon, who complies with all of the requirements of Forestry industry Safety Accord (FISA) publication FISA 804 - Electricity at work: Forestry.

If contact is made with an overhead line

you must immediately clear the area and suspend all work within 50m of the damage because the line could still be live, or become live again.

The operator of a machine that is in contact with an overhead line should:

- **if the machine is still operable and the operator is still in the cab:**

provided that you do not risk breaking the overhead line or dragging it to the ground, immediately lower the raised parts of the machine USING ONLY THE CONTROLS IN THE CAB and/or drive the vehicle clear of the overhead line.

contact us immediately on our emergency number so that we can check the overhead lines.

instruct other people in the vicinity not to approach the vehicle.

- **if the machine is not operable, cannot be driven clear of the overhead line or there is a risk that doing so will break the line or drag it to the ground:**

stay in the cab.

contact your site manager or us immediately on our emergency number by radio or mobile phone or as soon as possible by any other method.

instruct everyone outside the vehicle not to approach it.

do not exit the cab until given confirmation BY WPD PERSONNEL that it is safe to do so.

- **if the machine is inoperable or cannot be driven free and there is risk of fire or other immediate hazard:**

JUMP clear of the vehicle, avoiding simultaneous contact with any part of the machine and the ground.

try to land with your feet as close together as possible.

where possible, continue to move away from the vehicle using “bunny hops” with your feet together until at least 15m from the vehicle.

instruct other people in the vicinity not to approach the vehicle.

contact us immediately on our emergency number.

do not return to the vehicle until given confirmation by WPD PERSONNEL that it is safe to do so.

Whatever the circumstances please contact us on our emergency number immediately and tell us what has happened. Please be ready to provide us with a contact telephone number and an accurate location or set of directions – this will help us in getting our staff to site quickly to minimise any danger and lessen any disruption to your work.

Please report any damage or contact no matter how minor they may seem to you at the time. The damage may not cause a serious problem at the time of damage, but it could fail later, causing danger to our staff and members of the public, disruption to our customers' supplies, and – if we trace the damage back to you – a large repair bill.

MORE INFORMATION

For your information, we are legally obliged to report all contact with our system to the Health & Safety Executive (HSE), and, if you are an employer, you may be obliged to report incidents involving your staff or contractors to the HSE. Even if no one is hurt, you could be prosecuted for failing to report such an incident.

More detailed general information on this subject is available in the following publications from the HSE:

HSG(47) – Avoiding Danger from Underground Services

GS6 – Avoidance of Danger from Overhead Lines

Along with Forestry Industry Safety Accord (FISA) publication FISA 804 – Electricity at Work: Forestry

If you require more site-specific information relating to our equipment at your location please contact us on our regional general enquiries numbers.

Our general enquiries numbers are;

Midlands	0845 724 0240
----------	---------------

General Enquiries	
-------------------	--

South Wales	0845 601 3341
-------------	---------------

General Enquiries	
-------------------	--

South West	0845 601 2989
------------	---------------

General Enquiries	
-------------------	--

FINALLY...

Please, always remember that electricity cables and overhead lines can be very dangerous – the general rule is **STAY AWAY** and stay safe.

NOTES



This booklet is issued by the Safety Team

Western Power Distribution (East Midlands) plc. Registered in England and Wales No. 2366923

Western Power Distribution (West Midlands) plc. Registered in England and Wales No. 3600574

Western Power Distribution (South Wales) plc. Registered in England and Wales No. 2366985

Western Power Distribution (South West) plc. Registered in England and Wales No. 2366894

Registered Office: Avonbank, Feeder Road, Bristol BS2 0TB

Printed on material sourced from sustainable forests and TCF. Printed using vegetable/mineral oil based environmentally friendly inks.

2014, 4th issue