

UTILITIES STATEMENT REPORT

115 Chatham Street

Produced by XCO₂ for Archel Homes

February 2021



UTILITIES STATEMENT REPORT

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PURPOSE OF REPORT

The purpose of this report is to assess the likely demand the proposed development will have on the local utility networks and infrastructure. Furthermore, it highlights any likely significant utility enhancements, diversions, new equipment and/or provision for future works required due to this development.

To this end, XCO2 Ltd has consulted with the various service providers to assess available information within the utilities network.

LIMITATIONS

The scope of this statement is limited to a desktop study and is reliant on information received from third parties. The accuracy of information received from them cannot be guaranteed and XCO2 Energy Ltd accepts no liability for errors or omissions in the supplied data.

The exact location and depth of services described in this report will need to be confirmed by survey / investigation prior to the commencement of any works on site.

	Rev 0	Rev 1	Rev 2	Rev 3		
Remarks	First Issue	Second Issue	Third Issue	Fourth Issue		
Prepared by	DP/VL	VL	DP	VL		
Checked by	TD/RFF	RFF	TD	TD		
Authorised by	TK	TK	TK	TK		
Date	27/01/2021	02/02/2021	10/02/2021	18/02/2021		
Project reference	9.641	9.641	9.641	9.641		

1. OVERVIEW

115 Chatham Road is a new development in Reading, Berkshire, RG1 7JX. The proposed development is a 5-storey building consisting of 54 residential units. There are two buildings on the site, a two-storey office building which front Chatham Street, and a two-storey converted warehouse building to the rear. The buildings front an adjacent car park. A plan showing the site location and the surrounding context is shown in the below figure:

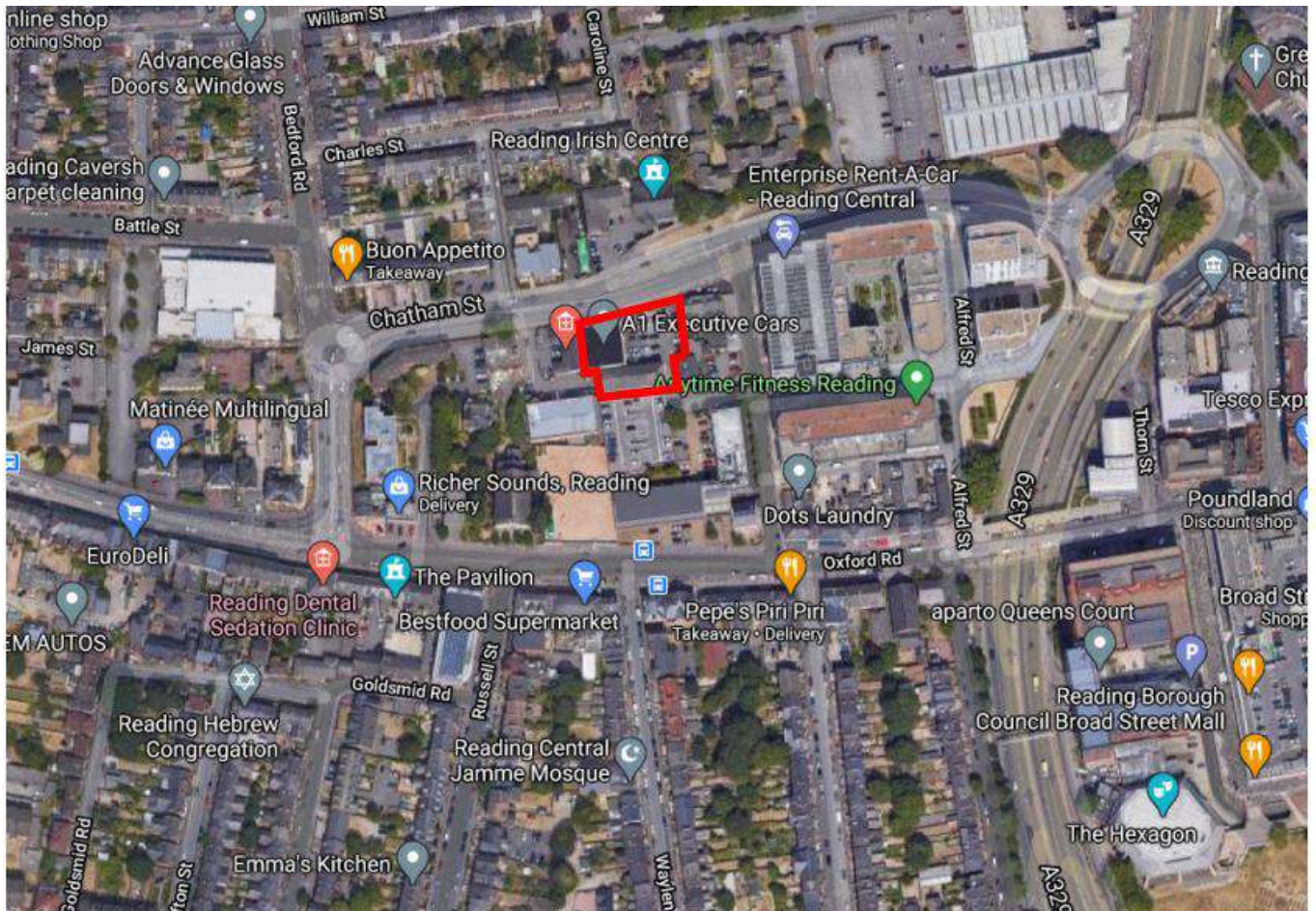


Figure 1: Site location

The proposed energy strategy for the residential development includes a communal energy centre with heat supplied by electric air source heat pumps. The residential development will have a storage tank for boosted domestic cold water. A contingency energy strategy for the residential development includes a communal energy centre with heat supplied by a combination of gas boilers and electric air source heat pumps. Based on this, XCO2 have carried out preliminary utility loading calculations and submitted applications to the relevant utility providers to check the capacity in their existing networks and to provide initial quotations for the works.

For the contingency energy strategy of a 50/50 split between electric air source heat pumps and gas boilers, the peak gas load is estimated in the region of 111kW based on the preliminary domestic hot water and heating load. A budget estimate application has been submitted to SGN to provide an estimate of costs required to provide a gas connection to the proposed development. SGN have responded and provided a budget estimate report which states an indicative cost of £6,400 (incl. VAT). This report has been included in Appendix C.

The total cold-water storage requirement for the development is estimated to be in the region of 10,900L based on the current layouts. The estimated incoming mains cold water peak flow is 1.6 L/s based on a 2-hour refill of the storage tank. A capacity check application has been submitted to Thames Water. Thames Water have responded and confirmed that the existing clean water network has capacity for the first 50 residential units, but not the full development of 54 residential units. This capacity report has been attached in Appendix C. Thames Water will need to carry out modelling works to confirm whether reinforcement of their network is necessary to deliver the required capacity, which they will undertake at their own cost.

Thames Water have confirmed that there is sufficient capacity in the adjacent existing sewerage network to serve the wastewater demands of the proposed development. This confirmation has been attached in Appendix C. This will need to be confirmed at the next design stage by the civil engineers.

An initial electrical load calculation has been undertaken for the proposed development, based on electric heating and the pre-planning information available at the time of writing this report, and an application for capacity check for the new electrical connection to the development has been submitted to Scottish & Southern Electricity Network (SSE), the provider in the area.

The site's telecommunications demand is anticipated to increase with the construction of 54 new apartments. New telecom infrastructure, such as equipment cabinet and chambers, may be required to serve the development. However, confirmation will be acquired from Openreach (BT), and other desired service providers (e.g. Hyperoptic, Virgin Media) following new connection applications, and new infrastructure will be provided within the building's plantrooms where possible.

In order to identify the type and approximate location of the existing below ground infrastructure, asset location plans have been obtained from statutory undertakers.

It should be noted that all locations of existing infrastructure are approximate and should be used for information purposes only. Actual positions should be located by on-site investigations and surveys prior to commencement of any site-related works and should be undertaken as per the utility company's requirements.

There are currently no sewers running within the site boundary based on the asset records received, it is expected that no diversions are required. Infrastructure upgrades are to be confirmed by the civil engineer.

There are currently no clean water distribution mains running within the site boundary, it is expected that no diversions are required.

There are currently no gas mains running within the site boundary, it is expected that no diversions are required.

There are no electrical and telecommunications services shown to be traversing the site and therefore it is likely that no diversions will be required. There are services running in close proximity to the site boundary on Chatham Street.

In general, all services currently supplying the site and the buildings within it shall be disconnected and replaced with new connections to serve the proposed development.

2. EXISTING UTILITIES INFRASTRUCTURE

2.1 ELECTRICITY

Provider: Scottish & Southern Electricity Network (SSE) is the Distribution Network Operator (DNO) of the area.

Services Adjacent to the Site:

Within site boundary	LV connection to existing building
Chatham Road	LV underground cables
Eaton Place	LV and HV underground cables

Existing services: The record information received from SSE indicates that there are no LV or HV cables traversing the site. The incoming supply to the existing building on site is from Chatham Street.

Diversions and disconnections required: Connection to the existing shop to be disconnected and removed as per SSE's requirements. No diversions appear to be necessary from the maps.

A formal application will need to be submitted to SSE for the safe isolation of all live supplies before the commencement of works.

New services required: The total building electrical load will be in the region of 370 kVA based on individual ASHP electric heating and information available at the time of writing this report. A budget estimate application has been submitted to SSE to provide an estimate of costs required for an electrical connection to the proposed development. SSE have responded and provided a budget estimate report which states an indicative cost of £80,000 – £85,000 (excl. VAT). This cost assumes that a 500kVA substation unit will be installed on site.

Do note that this budget estimate is provided as a result of a preliminary assessment only and possibly without any site specific considerations being taken into account. A budget estimate is not a formal offer for connection and cannot be accepted. The initial proposals will be subject to obtaining all necessary legal consents to carry out the work, including any consent required from third parties. The estimate provided at this stage may vary considerably from any further budget estimate or the price in any formal connection offer. For further information please refer to SSE report, which has been included in Appendix C.

Infrastructure upgrades required: Reinforcements to the existing HV network may be required to supply the new substation. Final requirement to be confirmed by SSE after submitting for a formal quotation.

Application Status: XCO2 have applied for a pre-planning application for a new electrical connection to the proposed building. SSE have responded and provided a budget estimate report, which has been included in Appendix C.

An onsite survey must be conducted and applications for new connections / diversions / disconnections must be submitted prior to any works to determine if alterations to the networks are required.

2.2 GAS

Provider: SGN is the Gas Transporter for the area.

Services Adjacent to the Site:

Within site boundary	None
Chatham Street	Low pressure (L/P) Gas mains: 1no. 63mm PE running within close vicinity of the site
Eaton Place	L/P Gas mains: 1no. Ø125mm PE

Existing services: The asset record map from SGN show an existing 63mm low-pressure mains running in the nearside footpath of Chatham Street in close proximity to the site boundary and an existing 125mm L/P mains running in Eaton Place. There are no gas mains identified to be traversing the site.

Diversions required: It is likely that no diversions will be required.

Disconnection required: The asset record map does not show any existing connections to the site. Therefore, it is likely that no disconnection will be required. Any existing gas connections to the site will need to be disconnected and capped-off prior to building works as per SGN requirements.

New services required: For the contingency energy strategy of a 50/50 split between electric air source heat pumps and gas boilers, the peak gas load is estimated in the region of 111 kW/h based on the preliminary domestic hot water and heating load. One bulk gas meter would be required as it would be a communal backup gas boiler strategy. A budget estimate application has been submitted to SGN to provide an estimate of costs required to provide a gas connection to the proposed development. SGN have responded and provided a budget estimate report which states an indicative cost of £6,400 (incl. VAT). Please refer to this report, which has been included in Appendix C.

Infrastructure upgrades required: SGN have provided a budget estimate report with expected works for a new gas connection.

Application Status: XCO2 have applied for a pre-planning application for a new gas connection to the proposed building, based on the contingency energy strategy. SGN have responded and provided a budget estimate report, which has been included in Appendix C.

An onsite survey must be conducted and an application for new connections / diversions / disconnections must be submitted prior to any works to determine if alterations to the networks are required.

2.3 SEWER

Provider: Thames Water is the sewerage undertaker for the area.

Services Adjacent to the Site:

Road / Zone	Services
Within site boundary	None
Chatham Street	Trunk surface water, foul, and abandoned sewers
Eaton Place	Trunk surface water and foul sewers

Existing services: The asset record map received from Thames Water and the GPR survey information indicate that there are no sewers traversing the site. The asset record maps show surface water, foul, and abandoned drainage pipework running adjacent to the site within Chatham Street and Eaton Place.

Diversions required: It is likely that no diversions will be required.

Disconnection required: The asset record map does not show any existing connections to the site. Therefore, it is likely that no disconnections will be required.

New services required: New sewerage connections to the development will be confirmed by the civil engineer at the next design stage.

Infrastructure upgrades required: Thames Water have confirmed that there is sufficient sewer network capacity in the area to serve the wastewater demands of development. This will need to be confirmed at the next design stage by the civil engineers.

Application Status: A wastewater pre-planning application has been sent to Thames Water. Thames Water have confirmed that there is sufficient sewer network capacity in the area to serve the wastewater demands of development. This will need to be confirmed at the next design stage by the civil engineers.

Further considerations to be provided by civil/structural engineer.

An onsite survey must be conducted and an application for new connections / diversions / disconnections must be submitted prior to any works to determine if alterations to the networks are required.

2.4 CLEAN WATER

Provider: Thames Water is the clean water provider for the area.

Services Adjacent to the Site:

Within site boundary	None
Chatham Street	Distribution mains: 1no. 6" CI Trunk mains: 1no. 9"
Eaton place	Distribution mains: 1no. 4" Hydrant: 1no.

Existing services: The asset record map from Thames Water shows no existing assets within the site boundary. The asset record map show distribution and trunk mains running adjacent the site perimeter within Chatham Street, and a distribution main and hydrant south of the site boundary within Easton Place.

Diversions required: It is likely that no diversions will be required.

Disconnection required: The asset record map does not show any existing connections to the site. Therefore, it is likely that no disconnections will be required. Any existing connections to the building will need to be disconnected and capped-off prior to building works, as per Thames Water requirements.

New services required: 1 no. bulk supply serving a common break tank for the residential development. The residential system will be boosted, and each residential connection will be metered (54no residential water meters + 1no landlord meter). The total incoming mains water flow rate for the residential unit will be approximately 1.51 L/s.

Infrastructure upgrades required: A capacity check application has been submitted to Thames Water. Thames Water have responded and confirmed that the existing clean water network has capacity for the first 50 residential units, but not the full development of 54 residential units. Thames Water will need to carry out modelling works to confirm whether reinforcement of their network is necessary to deliver the required capacity, which they will undertake at their own cost.

Application Status: A pre-planning application has been submitted to Thames Water for a capacity check. Thames Water have provided a clean water capacity report, which has been included in Appendix C.

An onsite survey must be conducted and an application for new connections / diversions / disconnections must be submitted prior to any works to determine if alterations to the networks are required.

2.5 TELECOMMUNICATIONS

Providers: Openreach [British Telecom] and Virgin Media.

Services Adjacent to the Site:

Road / Zone	Services
Within site boundary	Openreach: Incoming connection to existing building from junction box on Eaton Place Virgin Media: Incoming connection to existing building from junction box on Chatham Street
Eaton Place	Openreach: Underground cables and junction box

Existing services: The asset record maps received from Openreach and Virgin Media indicate that there are no communication services traversing the site, although there are services running in proximity to the site boundary in the footpaths surrounding the site.

Diversions and disconnections required: Existing Openreach connection to building is entering the site from Eaton Place corner & Virgin Media connection to existing building is entering the site from west on Chatham Street, both requiring disconnecting. A formal application will need to be submitted ahead of any works taking place on site. No diversions seem to be necessary.

New services required: Openreach as standard and further carrier services as confirmed by the client (e.g. Virgin Media or Hyperoptic fibre services) will be provided to serve the new demises of the development.

Infrastructure upgrades required: The development's telecommunications services demand is anticipated to increase with the construction of 54 new apartments. New telecommunications infrastructure, such as equipment cabinets and chambers, may be required to serve the development. However, confirmation will be acquired by the local telecom providers following the new connection applications.

An onsite survey must be conducted and applications for new connections / diversions / disconnections must be submitted prior to any works to determine if alterations to the networks are required.

3. SUMMARY

To develop this report, a desktop survey was carried out to obtain responses from various utility asset owners. A summary of these providers is given below.

It should be noted that all locations of existing infrastructure are approximate and should be used for information purposes only. Actual positions should be located by on-site investigations prior to commencement of any site-related works and should be undertaken as per the utility company's requirements.

3.1 UTILITIES ADJACENT TO THE SITE:

Table 1. Summary table

Utility	Existing services in vicinity of proposed area	Estimated new connection	Diversions/Disconnections required
Natural Gas	Chatham Street: 63mm PE L/P Main (close vicinity to site) Easton Place: 125mm PE L/P Main	No new connections required for current all-electric energy strategy. A gas connection is required for the contingency 50/50 electric ASHP/gas boiler energy strategy.	Disconnections & Diversions requirements to be confirmed with SGN.
Water	Chatham Street: 6" CI Distribution Main Chatham Street: 9" Trunk Main Easton Place: 4" Distribution Main Easton Place: Hydrant	New connections required	Disconnections & Diversions requirements to be confirmed with Thames Water.
Power	LV connection to existing building. LV & HV mains running in proximity of site boundary.	New connection/substation required.	Disconnections & Diversions requirements to be confirmed with UKPN.
Telecoms	Openreach, Virgin Media, Zayo Europe underground cables and apparatus running in proximity of site boundary. Connections to existing building.	New connections required	Disconnections & Diversions requirements to be confirmed with service providers.
Foul	Foul water sewers running beneath the roads adjacent to the development.	New connections to existing infrastructure required	Disconnections & Diversions requirements to be confirmed with Thames Water by Civil Engineer.

3.2 UTILITIES NOT AFFECTED BY THE DEVELOPMENT:

- ESP Utilities – Gas, and Electric
- Cadent Gas – Gas
- GTC – Telecom, Gas, Electric, Water, and Wastewater
- Network Rail – Transport
- Environmental Agency – Flood Risk
- Instalcom - Telecom
- Sky Telecommunications Services - Telecom
- GTT- Telecom
- Verizon – Telecom

UTILITIES STATEMENT REPORT

- KCOM – Telecom
- euNetworks – Telecom
- Harlaxton – Gas, Electric, and Water
- Engie - Electric
- Telent - Telecom

APPENDIX A – UTILITY MAP OVERLAY

APPENDIX B – UTILITY COMPANIES ASSET RECORD DRAWINGS

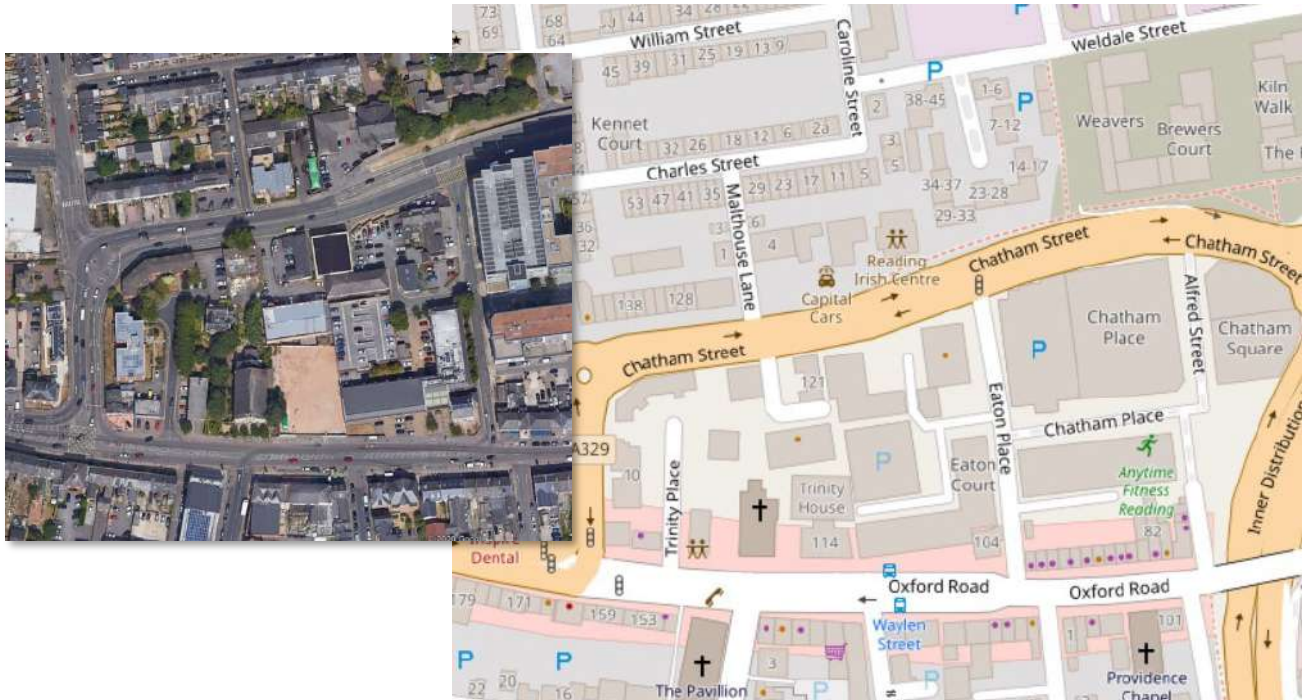
January: 2021



Radar Survey | Utility Mapping | Utility Survey | GPR Survey



Site Location



Grid Reference

SU 70869 73490

Grid Reference (6 figure)

SU708734

X (Easting): Y (Northing):

470869 173490

Latitude: Longitude:

51.455963 - 0.98140256

Address

115 Chatham Street, Reading.

Postcode (nearest):

RG1 7JX

Enclosures

Utility Type	Company	In-house Search	In Vicinity of Development	Not In Vicinity of Development	No Response Received to Date
Water Mains	Thames Water		12/01/2021		
Drainage	Thames Water		12/01/2021		
Gas	Cadent / ESP		12/01/2021		
Openreach (BT)	SGN	x	12/01/2021		
CATV	Virgin	x	12/01/2021		
Electric	SEE		12/01/2021		
Communication	CA			12/01/2021	
	Sky			12/01/2021	
	SSE		12/01/2021		
	Instalcom			12/01/2021	
	Zayo Europe		12/01/2021		
	gtc			12/01/2021	
	Sota			12/01/2021	
	eu networks			12/01/2021	
	Verizon			12/01/2021	
	KCOM			12/01/2021	
	Telent			12/01/2021	
	Cityfibre			12/01/2021	
	Turner Townsend		12/01/2021		
Environment Agency				12/01/2021	
Council				12/01/2021	
Tunnels & Pipelines	BT Deep Level Tunnels			12/01/2021	
	Thames Water Ring Main			12/01/2021	
	Post Office Tunnels			12/01/2021	
	BOC			12/01/2021	
	MOD			12/01/2021	
	Post Office			12/01/2021	
	CHL (Fisher German)			12/01/2021	
Transport	Canal & River Trust			12/01/2021	
	Network Rail			12/01/2021	
	Crossrail			12/01/2021	
	London Underground / LUHV			12/01/2021	
	Docklands Light Railway			12/01/2021	
	Private Rail Lines			12/01/2021	
	Trams			12/01/2021	
	Traffic Master			12/01/2021	
Not Affected					
	AWE Pipeline Esso Petroleum Company Limited Perenco UK Limited (Purbeck Southampton Pipeline) BOC Limited Fulcrum Pipelines Limited Petroineos BP Midstream Pipelines Phillips 66 Gateshead Energy Company Premier Transmission Ltd (SNIP) Carrington Gas Pipeline Gigaclear PLC Prysmian Cables & Systems Ltd (c/o Western Link)	CATS Pipeline c/o Wood Group PSN Humbly Grove Energy Redundant Pipelines - LPDA Cemex IGas Energy RWEnpower (Little Barford and South Haven) Centrica Energy Ineos Enterprises Limited SABIC UK Petrochemicals Centrica Storage Ltd DIO (MOD Abandoned Pipelines)			

Abbreviations

Apparatus	
Electric:	
DNO	Distribution Network Operator
iDNO	Independent Distribution Network Operator
ICP	Independent Connections Provider
LV	Low Voltage
HV	High Voltage
EHV	Extra High Voltage
kVA	Kilovolt Amperes
MVA	Megavolt Amperes
AC	Alternating Current
S/S	Substation
PMT	Pole Mounted Transformer
Gas:	
GT	Gas Transporter
iGT	Independent Gas Transporter
UIP	Utility Infrastructure Provider
PRS	Pressure Reducing Station (Governor)
LP	Low Pressure
MP	Medium Pressure
IP	Intermediate Pressure
HP	High Pressure
Water	
SLO	Self Lay Organization
Incumbent	Local Water only or Water & Sewerage Company
WRAS	Water Regulation Advisory Scheme
Other	
PE	Polyethylene
DI	Ductile Iron
ST	Steel
CI	Cast Iron
SI	Spun Iron
HPPE	High Performance Polyethylene
MDPE	Medium Density Polyethylene
CATV	Cable Television
GRP	Glass Reinforced Plastic
FTTP	Fibre to the premise
FTTC	Fibre to the cabinet
l/min	Litres per minute
H&S	Health and Safety
HBF	House Builders Federation
TPO	Tree Preservation Order

Enclosure Table Key

Desk Research

A cross in this column indicates that the response has been determined In-house.

In Vicinity

Utility plant is expected to be within, adjacent to or very close to the search area. It's recommended to liaise with the utility in advance of any works taking place.

Not In Vicinity

Utility plant is not expected to be within, adjacent to or very close to the search area. It may be located some distance from the search area.

Relevant Documents

The following documents must be referred to before work commences in the vicinity of existing services:

Health and Safety Booklet HS (GS) 6 Avoidance of Danger from Overhead Electric Lines.

General Safety Measures to Avoid Injury and Damage to Gas Apparatus.

HSE Guidance Note HS (G) 47 Avoiding Danger from Underground Services.

National Joint Utilities Group (NJUG) Publications Vol. 1.

CDM Regulations 2007 (Regulation 34 – Energy Distribution Installations).

Electricity at Work Regulations 1989.

Basic Risk Assumption for all Services

When dealing with existing services the following assumptions must always be accepted:

All existing buildings have gas, water electric and telecoms supplies to them until proven otherwise.

Any supply to an existing building, no matter how old the building is or how deteriorated the supply may appear, is taken to be 'live' until proven otherwise. All open land, vacant lots and derelict sites are deemed to have services beneath them until proven otherwise.

The only acceptable proof that a service is 'dead' and can be removed is written confirmation from the owner of the service. The quality and accuracy of information provided by utilities about their existing plant is indicative and no warranty is made as to its accuracy. Therefore, any utility record plans and/or marked up drawings provided by each utility must only be used as a guide and the actual location of plant should be verified by CAT Scan or trial holes before construction works commence.

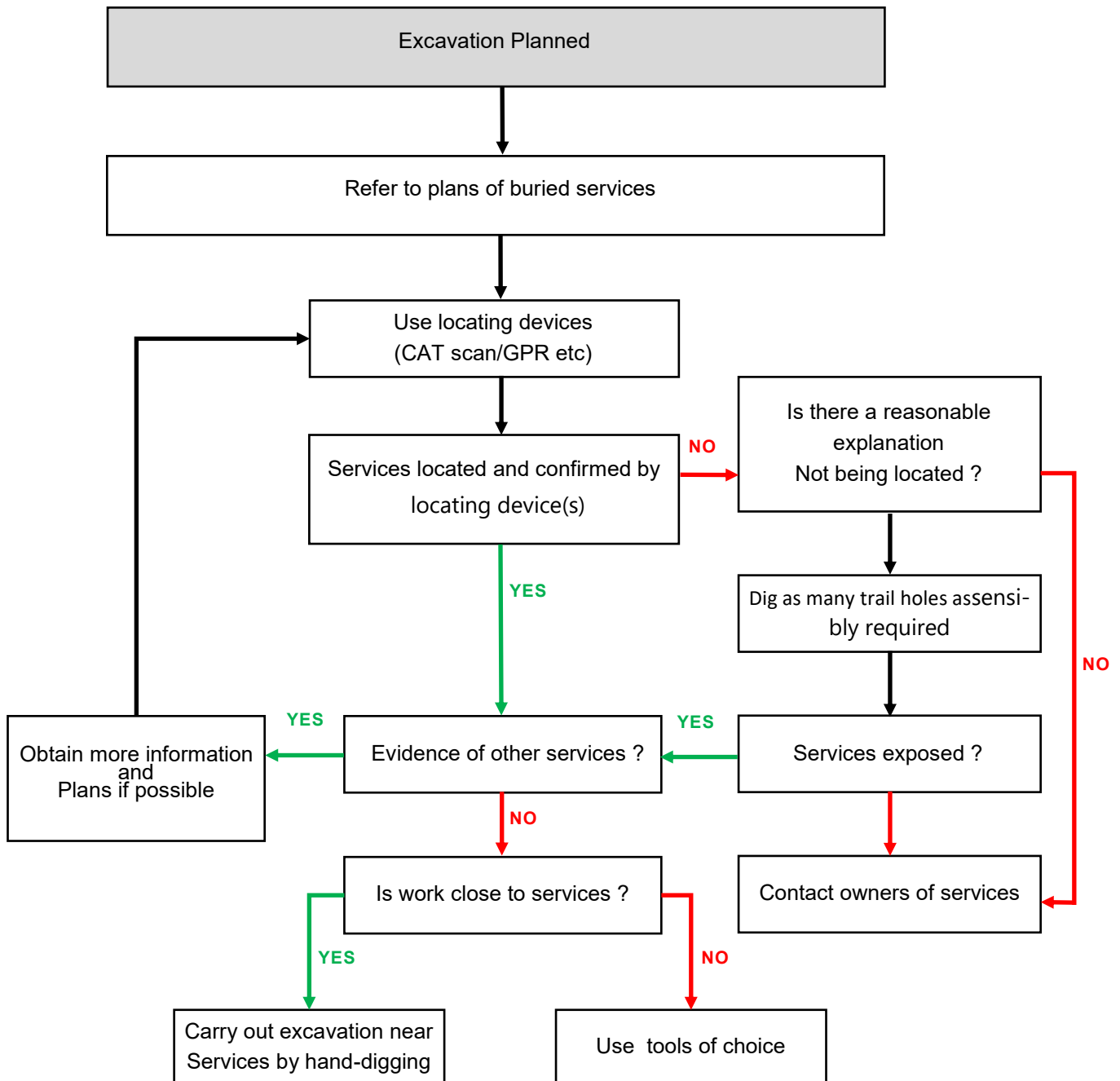
Please note not all service connections are shown on the utility record plans.

Plant Found Within Site Boundaries

Where utility plant is found within the site boundary, it is recommended for the client to check for legal easements or wayleaves.

Diversions of plant within site boundaries can be expensive and time consuming to relocate. Further investigation of costs and timescales are recommended. Please ask PES for further details.

This flow diagram is intended to help give an understanding of the process from referring to plans on-site through to the start of excavation.



For example, could services be non-metallic pipes? Please refer to HS (G) 47 text for further information.

† In particular; visual evidence. Ensure that the presence of services, which may be unmarked on plans or for which no plans are available, has been considered, for example service connections.

*** If there is visual evidence of services, but owners cannot be traced, despite all reasonable attempts to do so, any excavation could proceed but using hand-dug trial holes and proceeding with great care.*

Utility Guidance

Guidelines on the Positioning and Colour Coding of Underground Utilities' Apparatus Recommended Colour Coding of Underground Utilities Apparatus All depths are from the surface level to the crown of the apparatus.

Utility	Duct	Pipe	Cable	Marker Systems	Recommended Minimum Depths	
					Footway Verge	Carriageway
Electricity HV (High Voltage)	Black or red duct or tile	N/A	Red or black	Yellow with black and red legend or concrete tiles	450mm - 1200mm	750mm - 1200mm
Electricity LV (Low Voltage)	Black or red duct or tile	N/A	Black or red	Yellow with black legend		750mm
Gas	Yellow	* See row below	N/A	Black legend on PE pipes every linear metre.	600mm footway 750mm verge	750mm
*** PE - up to 2 bar - yellow or yellow with brown stripes (removable skin revealing white or black core pipe). - between 2 to 7 bar -orange. Steel pipes may have yellow wrap or black tar coating or no coating. Ductile Iron may have plastic wrapping Asbestos & Pit / Spun Cast Iron – No distinguishable colour						
Water non Potable & Grey Water	N/A	Black with green stripes	N/A	N/A	600mm - 750mm	600mm - 750mm
Water - Firefighting	N/A	Black with red stripes or bands	N/A	N/A	600mm - 750mm	600mm - 750mm
Oil / fuel pipelines	N/A	Black	N/A	Various Surface markers Marker tape or tiles above red concrete	900mm All work within 3 metres of oil fuel pipelines must receive prior approval	900mm All work within 3 metres of oil fuel pipelines must receive prior approval
Sewerage	Black	No distinguishing colour / material (eg: Ductile Iron may be red; PVC may be brown)	N/A	N/A	Variable	Variable
Communications	Grey, white, green, black, purple	N/A	Black or Light Grey	Various	250mm - 350mm	750mm minimum
Water 	Blue or Grey	Blue polymer or blue or uncoated Iron / GRP. Blue polymer with brown stripe (removable skin revealing white or black pipe)	N/A	Blue or blue/ black	750mm	750mm minimum
Water pipes for special purposes (e.g. contaminated ground) 	N/A	Blue polymer with brown stripes (non removable skin)	N/A	Blue or blue/ black	750mm	750mm minimum

*These guidelines describe utility industry practice. However, it should not be assumed that all apparatus will conform the recommendations for positioning and colour coding contained in this report.

Recommended Colour Coding of Other Underground Apparatus

All depths are from the surface level to the crown of the apparatus.

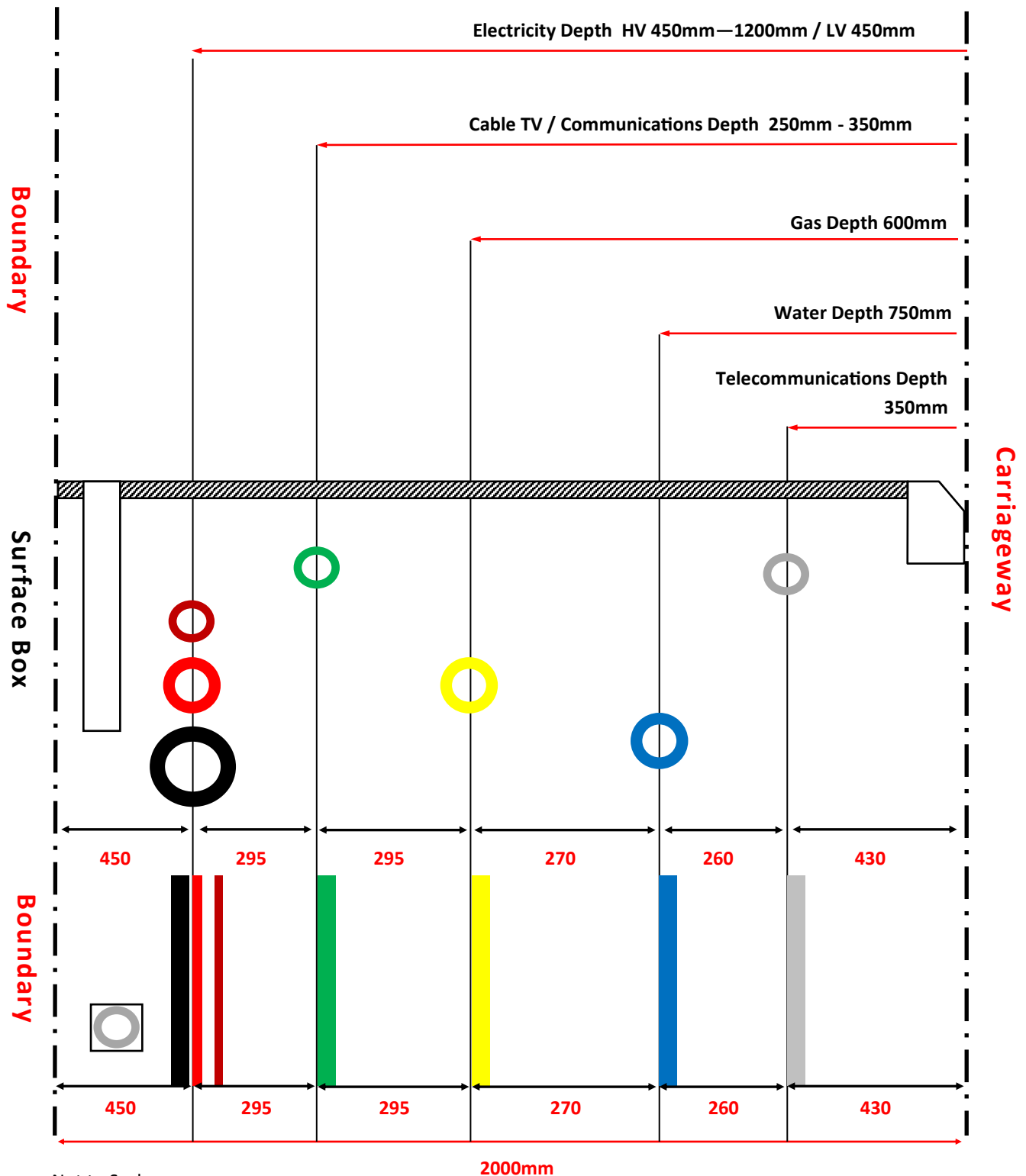
Utility	Duct	Pipe	Cable	Marker Systems	Recommended Minimum Depths	
					Footway Verge	Carriageway
At the time of publication the following were current examples of known highway authority apparatus colour coding but local variations may occur.						
Street Lighting						
England and Wales	Orange	N/A	Black	Yellow with black legend	450mm	600mm
Scotland	Purple	N/A	Purple	Yellow with black legend	450mm	450mm
Northern Ireland	Orange	N/A	Black or orange		450mm	450mm
Other						
Traffic Control	Orange	N/A	Orange	Yellow with black legend		
Street Furniture		N/A	Black	Yellow with black legend	450mm	600mm
Communications		N/A	Light grey or black	Yellow with black legend		
CCTV	Purple	N/A		Yellow with black legend		
Motorways and Trunk Roads England and Wales						
Communications	Purple	N/A	Grey	Yellow with black legend	450mm	
Communications Power	Purple	N/A	Black	Yellow with black legend		
Road Lighting	Orange	N/A	Black	Yellow with black legend		
Scotland						
Communications  	Black or grey	N/A	Black	Yellow with black legend		
Road Lighting	Purple	N/A	Purple	Yellow with black legend		

*These guidelines describe utility industry practise. However, it should not be assumed that all apparatus will conform to the recommendations for Positioning and colour coding contained in this publication.

NJUG Guidelines on the Positioning and Colour Coding of Underground Utilities

Recommended Positioning of Utility Apparatus in a 2 metre Footway (s)

Note - the same positioning should apply in the carriageway service strip (if safe and practical to do so) where a development has footways). available for services and or the boundary of the property in on the carriageway (please refer to minimum depths in carriageways)
For further advise please contact the asset owner.



Typical pipeline markers



Mainline marker post



Huntsman marker post



BPA marker post



ConocoPhillips marker post



ML marker post



BP marker post



Esso marker posts



Total marker post



GPSS marker post



Shell marker posts



Beware of posts with brass studs (such as the post above) which have cables connecting to the pipeline below.



New design marker post

Typical pipeline aerial markers



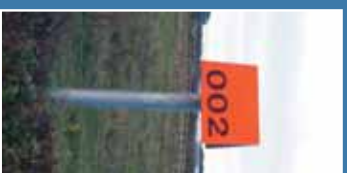
Shell aerial marker



Esso & MLP aerial marker



GPSS aerial marker



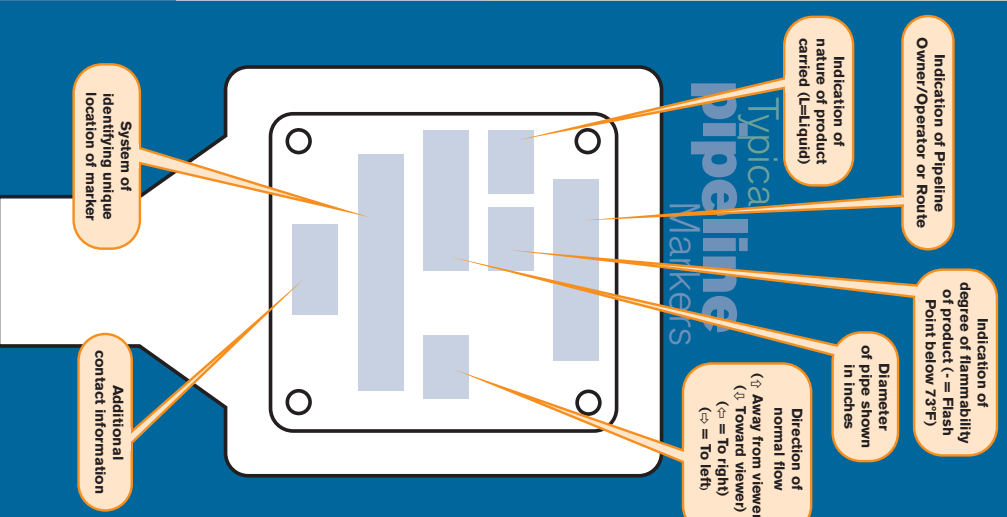
BP aerial marker



Plain orange with white stick

BPA
ConocoPhillips
Total/Huntsman
have similar aerial
markers to left

Standard symbols on marker posts



The above information may not appear in the same order as indicated and some items may be omitted

Useful pipeline enquiry sites
www.linewatch.co.uk
 for links to individual pipeline websites
www.linesearch.org



Search address supplied Bottom Line Technologies Europe Ltd
115
Chatham Street
Reading
RG1 7JX

Your reference Chatham Street

Our reference ALS/ALS Standard/2021_4334137

Search date 6 January 2021

Knowledge of features below the surface is essential for every development

The benefits of this knowledge not only include ensuring due diligence and avoiding risk, but also being able to ascertain the feasibility of any development.

Did you know that Thames Water Property Searches can also provide a variety of utility searches including a more comprehensive view of utility providers' assets (across up to 35-45 different providers), as well as more focused searches relating to specific major utility companies such as National Grid (gas and electric).

Contact us to find out more.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0845 070 9148

Search address supplied: Bottom Line Technologies Europe Ltd, 115, Chatham Street,
Reading, RG1 7JX

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position, size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0845 070 9148, or use the address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority.

Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners.

This report relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus.

The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies.

For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and

pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Payment for this Search

A charge will be added to your suppliers account.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational issues please direct them to our service desk. Which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

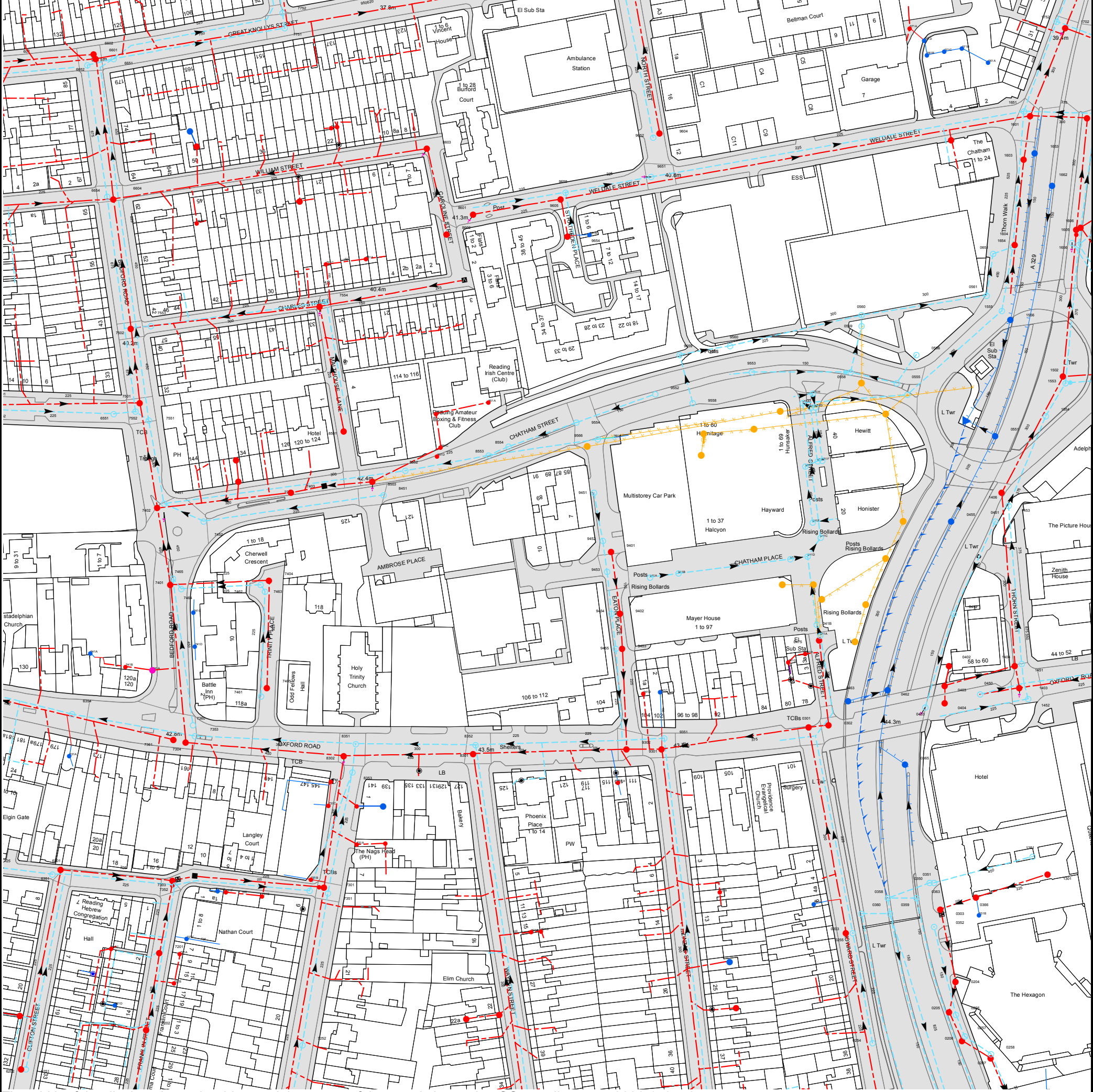
Clean Water queries

Should you require any advice concerning clean water operational issues or clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Asset Location Search Sewer Map - ALS/ALS Standard/2021 4334137



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 470896,173476
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
0453	36.96	36.16
0404	44	41.34
0403	44.24	41.02
0402	45.02	42.4
0455	n/a	n/a
0452	39.56	38.63
0450	44.05	42.34
0551	36.74	34.98
0451	43.06	42.02
1406	43.44	40.66
1453	43.69	41.86
1404	44.11	40.93
1403	44.18	40.97
1451	44.08	42.22
1452	44.06	42.53
1351	n/a	n/a
1554	44.25	41.29
1301	39.58	38.98
0363	n/a	n/a
0350	39.09	37.13
0351	39.05	37.25
0352	39.43	38.01
0303	39.59	38.65
0205	39.83	38.42
0204	39.7	n/a
0256	39.82	37.6
0206	40.06	38.44
0257	40.02	37.61
0366	n/a	n/a
031B	n/a	n/a
0258	40	37.38
0207	40.56	38.35
0301	43.98	40.93
0302	43.97	41.01
0463	n/a	n/a
941D	n/a	n/a
941C	n/a	n/a
0462	n/a	n/a
041G	n/a	n/a
041H	n/a	n/a
9403	44.2	41.3
9455	44.15	42.77
0475	n/a	n/a
041A	44.13	42.03
041B	44.5	41.84
9454	44.32	42.95
9402	44.35	41.7
941A	n/a	n/a
941B	n/a	n/a
9453	44.4	43.06
041E	n/a	n/a
041D	44.55	41.55
9401	44.4	42.22
9452	44.36	43.14
041C	44.5	41.5
041F	n/a	n/a
9451	44.41	43.25
051G	n/a	n/a
051E	n/a	n/a
0254	45.27	44.22
82HL	n/a	n/a
92LM	n/a	n/a
92MN	n/a	n/a
0255	44.65	43.44
0203	44.71	n/a
821A	n/a	n/a
821B	n/a	n/a
0359	n/a	n/a
0360	n/a	n/a
031A	n/a	n/a
0358	n/a	n/a
931B	n/a	n/a
931A	n/a	n/a
0365	n/a	n/a
9302	43.82	40.7
9301	43.87	n/a
8352	43.59	42.11
9351	43.81	42.63
7201	45.51	43.3
7303	44.63	41.89
7361	n/a	n/a
721B	n/a	n/a
7352	44.67	42.62
721A	n/a	n/a
7304	42.81	39.42
721C	n/a	n/a
7353	42.89	41.24
731D	n/a	n/a
731F	n/a	n/a
731E	n/a	n/a
7252	47.93	46.51

Manhole Reference	Manhole Cover Level	Manhole Invert Level
7359	n/a	n/a
731B	n/a	n/a
7301	45.47	40.68
7351	45.51	43.06
731C	n/a	n/a
731A	n/a	n/a
8302	43.5	40.22
8353	n/a	n/a
8351	43.41	41.75
831A	n/a	n/a
83KJ	n/a	n/a
83MJ	n/a	n/a
83NK	n/a	n/a
82HM	n/a	n/a
8301	43.69	40.28
6254	n/a	n/a
6202	47.72	45.52
6251	47.64	46.2
6351	44.13	42.8
6301	44.13	42.12
631A	n/a	n/a
621C	n/a	n/a
621D	n/a	n/a
7202	46.86	44.58
7360	n/a	n/a
6354	42.37	40.64
7461	n/a	n/a
7405	43.21	n/a
741A	n/a	n/a
741B	n/a	n/a
641A	n/a	n/a
741D	n/a	n/a
741C	n/a	n/a
7463	n/a	n/a
7464	n/a	n/a
7401	42.06	38.84
7462	n/a	n/a
7404	42.75	39.79
7465	n/a	n/a
7452	41.71	40.08
1652	39.44	38.24
0556	n/a	n/a
071D	n/a	n/a
061B	n/a	n/a
071C	n/a	n/a
06NL	n/a	n/a
071B	n/a	n/a
0561	n/a	n/a
061A	n/a	n/a
0651	42.03	39.38
1555	n/a	n/a
1556	n/a	n/a
1654	43.17	39.14
1604	43.33	38.57
1603	41.07	37.47
1651	39.73	37.99
1601	39.77	36.86
1653	39.51	38.65
1662	n/a	n/a
1752	39.25	37.63
1502	44.36	40.65
1702	39.32	36.22
1553	44.31	41.19
1656	n/a	n/a
1605	42.88	38.69
1657	42.13	39.43
1606	n/a	n/a
1602	39.48	37.13
051F	n/a	n/a
8553	43.73	41.78
851C	n/a	n/a
8554	43.89	42.48
9566	n/a	n/a
951A	n/a	n/a
9554	44.65	43.23
051C	n/a	n/a
051D	n/a	n/a
051A	44.6	41.03
9558	n/a	n/a
851A	n/a	n/a
051B	44.07	40.63
9552	45.24	43.87
051H	n/a	n/a
0555	44.07	42.09
0558	44.6	41.79
9553	45.29	44.09
9559	n/a	n/a
9560	43.88	40.72
0559	n/a	n/a
0560	41.48	40.26
9654	41.81	40.38
9601	41.73	39.71
961A	n/a	n/a

Manhole Reference	Manhole Cover Level	Manhole Invert Level
8602	41.18	38.42
8601	41.49	38.8
9605	41.39	38.43
6604	39.23	36.23
6654	39.26	37.12
9655	41.34	40.04
9651	41.04	39.67
8603	39.82	37.24
76JN	n/a	n/a
9652	39.98	38.18
9604	39.96	36.78
76KJ	n/a	n/a
761B	n/a	n/a
76FN	n/a	n/a
6651	38.33	36.45
6601	38.49	35.58
6602	38.37	35.62
071A	n/a	n/a
7751	38.03	36.43
7752	37.9	36.95
8752	n/a	37.17
7402	41.47	38.28
7451	41.45	39.85
8451	42.54	41.01
7403	41.94	n/a
75JJ	n/a	n/a
8503	42.44	39.34
8552	42.72	41.2
75JK	n/a	n/a
851D	n/a	n/a
8501	41.62	38.82
7551	40.83	39.32
6551	40.75	39.46
851B	n/a	n/a
7552	40.8	38.39
7501	40.72	37.37
7502	40.18	36.78
7553	40.02	38.9
7503	40.18	37.44
7554	40.12	39.27
761C	n/a	n/a
861A	n/a	n/a
761A	n/a	n/a
76HL	n/a	n/a
6652	38.51	36.42
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.		



ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

	Foul: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
	Surface Water: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
	Combined: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
	Trunk Surface Water
	Storm Relief
	Trunk Combined
	Bio-solids (Sludge)
	Proposed Thames Surface Water Sewer
	Proposed Thames Water Foul Sewer
	Foul Rising Main
	Gallery
	Surface Water Rising Main
	Combined Rising Main
	Proposed Thames Water Rising Main
	Vacuum

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

	Air Valve
	Dam Chase
	Fitting
	Meter
	Vent Column

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

	Control Valve
	Drop Pipe
	Ancillary
	Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

	Undefined End
	Inlet

- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Insight on 0845 070 9148.

Other Symbols

Symbols used on maps which do not fall under other general categories

	Public/Private Pumping Station
	Change of characteristic indicator (C.O.C.I.)
	Invert Level
	Summit

Areas

Lines denoting areas of underground surveys, etc.

	Agreement
	Operational Site
	Chamber
	Tunnel
	Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

	Foul Sewer
	Combined Sewer
	Culverted Watercourse
	Surface Water Sewer
	Gully
	Proposed
	Abandoned Sewer

Asset Location Search Water Map - ALS/ALS Standard/2021 4334137



The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 470896, 173476.
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

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ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

4"

Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

16"

Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

3" SUPPLY

Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.

3" FIRE

Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

3" METERED

Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Thames Water Utilities Ltd, Property Searches, PO Box 3189, Slough SL1 4W, DX 151280 Slough 13
T 0845 070 9148 E searches@thameswater.co.uk | www.thameswater-propertysearches.co.uk

Valves

+

General Purpose Valve

◆

Air Valve

▲

Pressure Control Valve

X

Customer Valve

Hydrants

●

Single Hydrant

Meters

■

Meter

End Items

Symbol indicating what happens at the end of a water main.

└

Blank Flange

┐

Capped End

○

Emptying Pit

⊖

Undefined End

≡

Manifold

⊙

Customer Supply

⊕

Fire Supply

Operational Sites

⊕

Booster Station

◐

Other

◑

Other (Proposed)

▲

Pumping Station

▲

Service Reservoir

⊕

Shaft Inspection

●

Treatment Works

⊙

Unknown

⌘

Water Tower

Other Symbols

□

Data Logger

Other Water Pipes (Not Operated or Maintained by Thames Water)

Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

Private Main: Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0121 345 1000 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking	Cheque
Call 0845 070 9148 quoting your invoice number starting CBA or ADS / OSS	Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk	By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number	Made payable to ' Thames Water Utilities Ltd ' Write your Thames Water account number on the back. Send to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW or by DX to 151280 Slough 13

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.

Our Ref: 20933627 Your Ref: Chatham Street

Wednesday, 06 January 2021

Thank you for your enquiry dated Wednesday, 06 January 2021

Please find an extract from our mains records for your proposed work area, any SGN assets are described in the map legend. **On some occasions blank maps may be sent to you, this is due to your proposed work being in a no gas area but within our operational boundaries.**

This mains record only shows the pipes owned by SGN in our role as a Licensed Gas Transporter (GT). Please note that privately owned gas pipes or pipes owned by other GTs may be present in this area and information regarding those pipes needs to be requested from the owners. If we know of any other pipes in the area we will note them on the plans as a shaded area and/or a series of x's.

The information shown on this plan is given without obligation or warranty and the accuracy cannot be guaranteed. Service pipes, valves, siphons, stub connections etc. are not shown but their presence should be anticipated. Your attention is drawn to the information and disclaimer on these plans. The information included on the plan is only valid for 28 days.

On the mains record you may see the low/medium/intermediate pressure gas main near your site. There should be no mechanical excavations taking place above or within 0.5m of a low/medium pressure system or above or within 3.0m of an intermediate pressure system. You should, where required confirm the position using hand dug trial holes.

A colour copy of these plans and the gas safety advice booklet enclosed should be passed to the senior person on site in order to prevent damage to our plant and potential direct or consequential costs to your organisation.

Safe digging practices in accordance with HSE publication HSG47 "Avoiding Danger from Underground Services" must be used to verify and establish the actual position of the mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all relevant people (direct labour or contractors) working for you on or near gas pipes.

It must be stressed that both direct and consequential damage to gas plant can be dangerous for your employees and the general public and repairs to any such damage will incur a charge to you or the organisation carrying out work on your behalf. Your works should be carried out in such a manner that we are able to gain access to our apparatus throughout the duration of your operations.

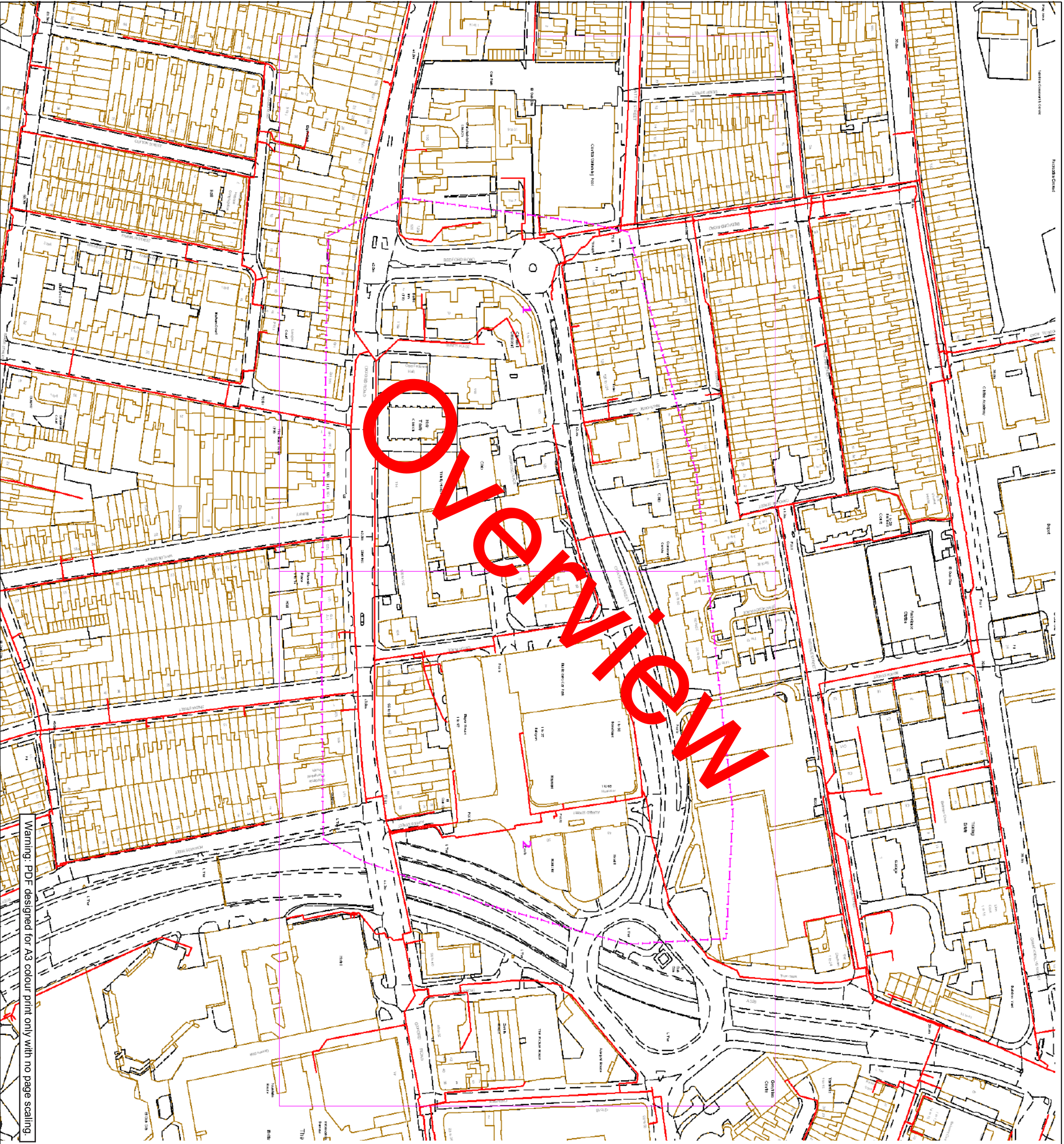
If you require any further information please do not hesitate to contact us.

Yours sincerely,

The Safety Admin Team

For more information, visit our Dig Safely pages on [sgn.co.uk](https://www.sgn.co.uk)

Tel: 0800 912 1722



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



Contact Us
Mapping Enquiries: All areas
General Enquiries: All areas

This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc. are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Safety Admin Team on 0800 912 1722 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 111 999

- Low Pressure Mains
- Medium Pressure Mains
- Intermediate Pressure Mains
- High Pressure Mains
- LAS
- GTS
- SSSIs
- Some Examples Of Plant Items
- Valve
- Siphon
- Cover
- Diameter Change
- Material Change
- Digsite
- Line
- Area

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General En

All areas

This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc. are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Safety Admin Team on 0800 912 1722 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 111 999

Mains

Pressure Mains

Mains

SSSIs

SSSIs

Items

Items

	Depth of Cover		Diameter Change		Material Change
--	-------------------	--	--------------------	--	--------------------

	Depth of Cover		Diameter Change		Material Change
--	-------------------	--	--------------------	--	--------------------

Area: 

Area: 

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Contact Us
Mapping Enquiries: All areas
General Enquiries: All areas

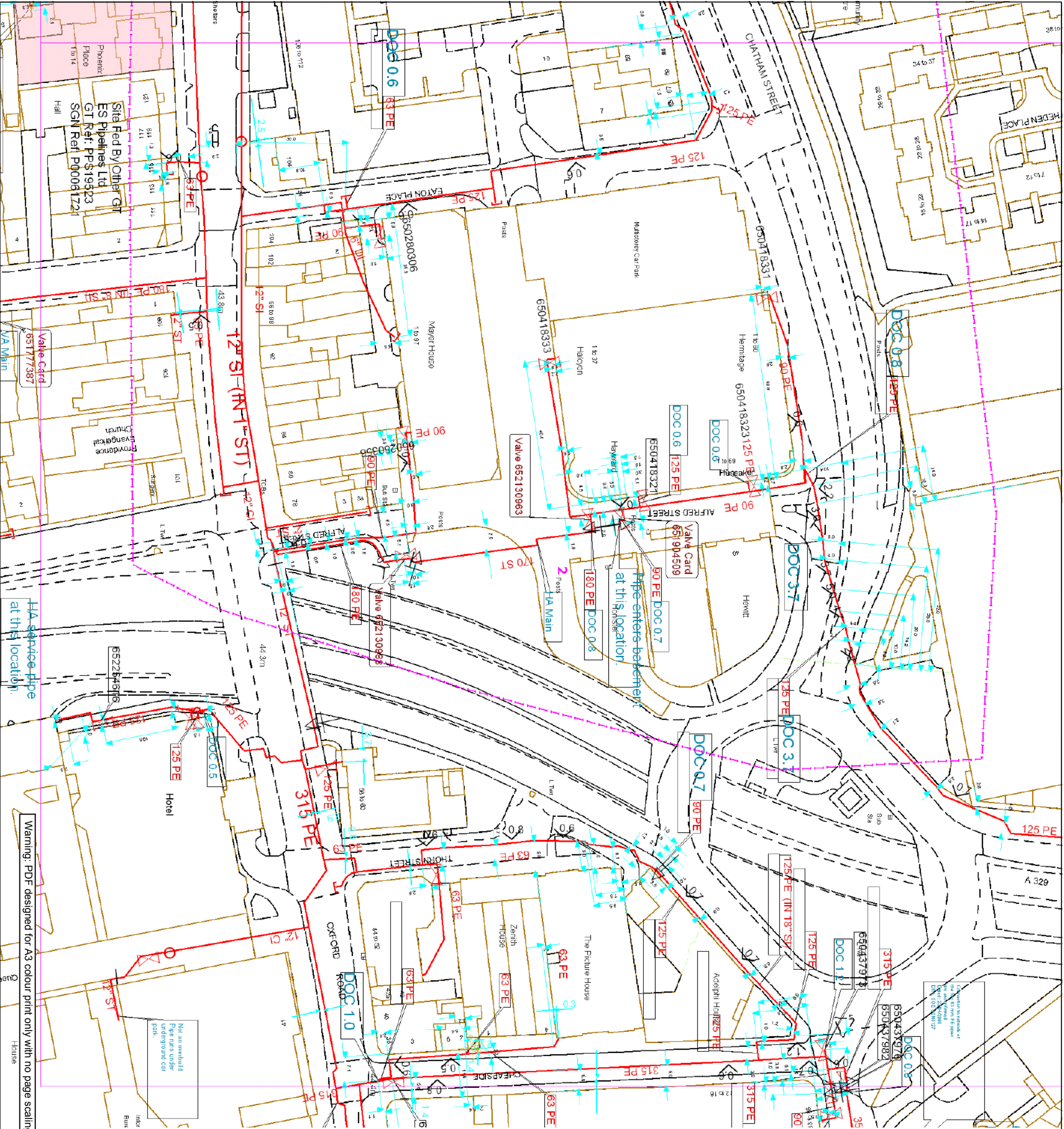
This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc. are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Safety Admin Team on 0800 912 1722 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 111 999

Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAS
GTS
SSSIS

Some Examples Of Plant Items
Valve
Siphon
Cover
Digsite: Line: Area:

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Map Symbols

VALVE OPEN	VALVE CLOSED	GOVERNOR	END CLOSURE	SYPHON	REDUCER	TEE
TEST POINT	CATHODIC PROTECTION	GENERAL REFERENCE	FLOW MEASURE	DIP POINT	MONO ETHYLENE GLYCOL	OILING POINT
FLOW STOP	PRESSURE MEASUREMENT	STAND PIPE	OFFICIAL MINISTRY RECORD	PURGE POINT	GAS CONDITIONER	DRAIN POINT
					LP MAINS	
SKETCH BUBBLE	DEPTH OF COVER	METER	MATERIAL CHANGE		MP MAINS	
					IP MAINS	
					LHP MAINS	
					HISTORY DATA	
					SSSI	
PIG TRAP	CROSSOVER CONNECTION	CHANGE OF DIAMETER	PIPE JOINT		CONTACT ZONE	
						LTS

Safety Advice - Valves



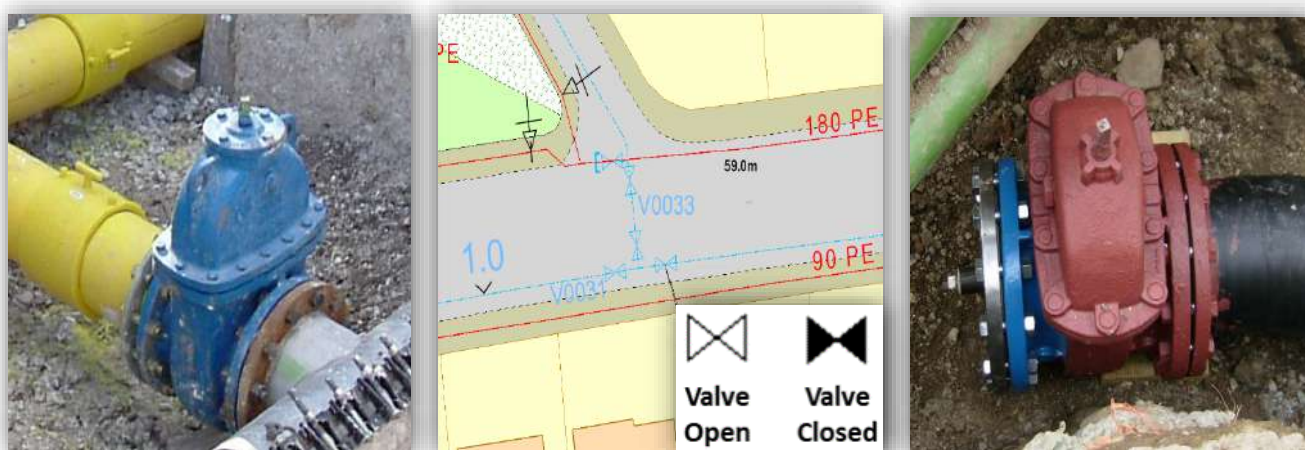
Guidance when undertaking work near gas valves in our network areas

SGN manages the network that distributes gas to 5.8 million homes and businesses across Scotland and the south of England.

Due to a manufacturing issue, we are currently replacing or upgrading certain valve types that are at risk of bolt failure. In extreme cases, this can lead to gas escapes. This is a safety hazard and we have produced this guide to ensure you undertake adequate safety precautions when working near gas valves.

Identifying gas valves

The images below are an illustration of typical gas valves. Please note, valves come in various colours, shapes and sizes, and you may come across a valve that looks different to those found in the images.



What should you do?

When planning to work in our network areas, please observe the following points:

1. You must contact us before starting any work activity within **3.0m** of a gas valve identified on our maps.
2. If an unexpected gas valve is exposed you must immediately stop excavation works and report this to us.
3. To protect yourself against the risks associated with exposing a valve, we advise that you contact us when in doubt.

Contact details

If you require further information or need assistance please contact us:

Safety Admin Team: **0800 912 1722**
plantlocation@sgn.co.uk

Valve enquiries will be forwarded to a local engineer who will provide further safety information.



SGN

Your gas. Our network.

Dig safely

Measures to avoid injury
and damage to gas pipes



The following protective and precautionary measures MUST be taken when working in the vicinity of gas mains and services.

It is the responsibility of the property owner or company carrying out the work to make sure they've complied with the relevant legislation and Health and Safety Executive (HSE) guidance, eg HS(G)47. In practice, this means that whoever is carrying out the work MUST obtain gas mains location information and/or maps showing the indicative position of the gas network before any work takes place.

To avoid injury to yourself, your employees, colleagues and the general public you MUST suitably mark the position of the pipes on site.

HS(G)47 outlines best practice that should be followed to ensure you work safely:

1. Plan the work, obtain maps.
2. Detecting, identifying and marking underground services.
3. Safe excavation and safe digging practices.

In addition to the requirements under the Health and Safety At Work etc. Act 1974 to prevent injuries to employees and others (not employed), it is an offence under regulation 15 of the Pipelines Safety Regulations 1996 to cause damage to a pipeline (which includes gas mains and services as well as higher pressure pipelines) so as to give rise to a danger to persons.

You MUST make sure that current full colour copies of our maps are issued to all relevant personnel on site and they're aware of the presence and location of our gas mains and services prior to any excavation.

In a gas emergency

If you cause a gas leak or suspect a main or service pipe or equipment is leaking, you **MUST** take the following emergency actions immediately:

- **Ask people to move away from the area of the gas escape.**
- **Call 0800 111 999 immediately.**

1. **Don't attempt to repair the escape or stop the leakage.**
2. **As gas may enter buildings, ask people in the surrounding premises to leave until it's safe for them to return.**
3. **Stop anyone going near the immediate vicinity of the gas escape.**
4. **Prohibit smoking and extinguish all naked flames.**
5. **Don't use mobile phones or other ignition sources.**
6. **Assist our representatives and other emergency services such as the police, ambulance, and fire service as requested.**

Additional reference material

- SGN guidance for Safe Working in the Vicinity of Pipelines & Associated Installations operating >7barg. Applicable for HP only.
- HS(G)47 **Avoiding Danger from Underground Services** available from hse.gov.uk
- NJUG **Utilities Guidance on Positioning and Colour Coding of Apparatus** available from njug.org.uk





Making an enquiry for gas mains or services maps

Please visit our **Dig safely** pages on sgn.co.uk for plant protection information and links to our online mapping system and other associated information and guidance.

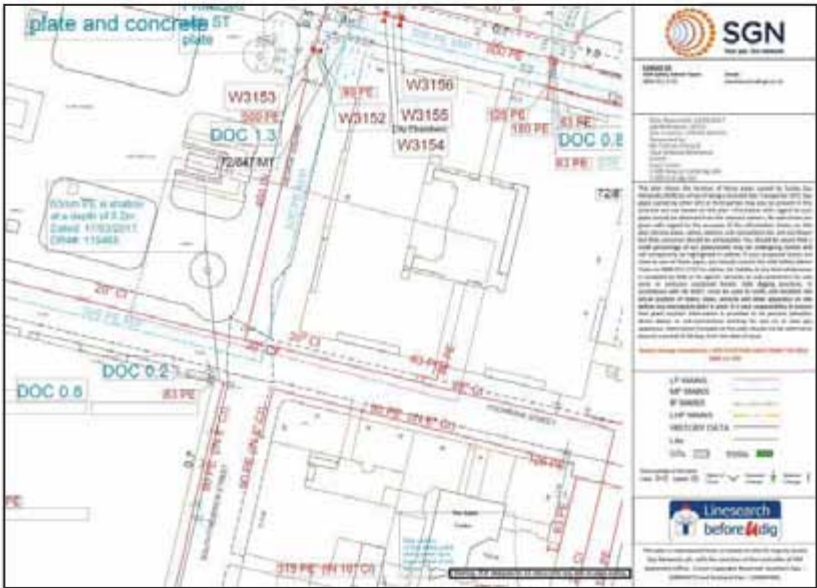
Our simple and easy to use online mapping system is available 24/7, 365 days a year.

You'll need to register/log in and provide a few details about your site location and the work you'll be carrying out. We'll respond immediately by email.

What you're likely to be sent

You'll be sent an email with a map. This will be an extract from our gas mains record, showing your site and any of our gas pipes as well as relevant safety information.

We always send out safety information, however we may forward your enquiry on to a local plant protection officer or a pipelines engineer to make direct contact with you depending on the work location.



Example of a gas map

Note: Service pipes are not shown on our maps

When working near our gas mains and services

Safe system of work

To satisfy ourselves that work in the vicinity of our gas mains is being carried out safely, we may ask for a copy of your risk assessment and/or method statement paperwork.

Where work falls under the Construction (Design and Management) Regulations 2015 reference to our gas mains and services **MUST** be made within your site Health and Safety file.

Financial

Every reasonable precaution **MUST** be taken to avoid personal injury or damage to our gas network at all times.

If we incur any costs to repair direct or consequential damage or divert any gas main or service, you'll be recharged in full.

HSE

Any damage to our gas mains or services will be subject to legislative reporting responsibilities to the Health and Safety Executive under Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 2013, Gas Safety Management Regulations 1996, and the Pipelines Safety Regulations 1996.

Minimum safe working distances

Depending on the activity being undertaken and the gas mains or services you are working within the vicinity of, there are different safe distances that **MUST** be adhered to. SGN plant protection officers or pipeline engineers will inform you of these if required.

Surface boxes and manholes

Do not bury or move our surface boxes. Free access **MUST** be maintained during and after your work. No manhole cover or other structure can be built over, around or under a gas main, and no work is to be carried out that results in a reduction or increase in cover or protection without prior written agreement.

Deep excavations

Adequate protection, approved by us, **MUST** be applied for any deep excavations in the vicinity of our gas mains and services that may affect its security and integrity. Ground movement around gas mains **MUST** be prevented. We **MUST** be contacted if a sewer trench or any other water authority is to be constructed at greater than 1.5 metres depth near a buried gas main or service pipe. You **MUST** give us detailed drawings showing the line and width of the proposed sewer or other trench, together with the soil group classification of the area concerned.



Crossing our mains or services

The placing of heavy construction plant, equipment, materials or the passage of heavy vehicles over our gas mains is prohibited unless specifically agreed protective measures (ie the construction of reinforced crossing points) have been carried out. This is particularly important where reductions in side support or ground cover are planned. You **MUST NOT** carry out any work in servitudes/easements without our prior written consent.

Exposed plant

Where excavations in the vicinity of our gas mains affect its support, the plant **MUST** be adequately supported and protected in consultation with us and to our satisfaction. It **MUST** be protected from impact, restraints and thrust blocks, and supports **MUST NOT** be removed without our agreement.

Hot work

One of our representatives should be present when welding or other hot work involving naked flames is being carried out near our gas mains, as there's potential for heat damage to plastic pipeline/coatings.

Backfilling

Concrete backfill should not be placed closer than 300mm to our mains. No concrete or hard material should be placed under or adjacent to any of our gas mains. Shuttering **MUST** be constructed to maintain the stated clearances and prevent fresh concrete encasing our mains or services. Material used for backfill around our gas mains **MUST** conform to the following:

- If sand, it **MUST** be well-graded in accordance with BS EN 12620:2002.
- It **MUST NOT** contain any sharp particles (stones, bricks, lumps or corrosive materials).
- Foamed concrete **MUST NOT** be used.
- It **MUST** be laid to a minimum depth of 250mm above the crown of the gas main.

Note: Power ramming **MUST NOT** take place until a 300mm hand rammed layer has been completed over the crown of the main.

Access

Free access to our sites, mains and services, including temporary structures and spoil heaps **MUST** be available at all times.





Mechanical excavation

Mechanical excavators (including breaker attachments) **MUST NOT** be used within the following distances from the confirmed location of our gas mains and services shown on our gas maps without prior agreement:

Type of mains and services	Gas map identification	Hand excavation required inside	Pipe pressure indication shown on map
Low Pressure (LP)	0 – 75mbar	0.5 metres	
Medium Pressure (MP)	75mbar to 2 bar	0.5 metres	
Intermediate Pressure (IP)	2 – 7 bar	3.0 metres	
High Pressure (HP)	Above 7 bar	You must seek approval from us prior to any work	

Major accident hazard pipelines

High pressure pipeline

No work is to take place near an HP pipeline until it is agreed with us. After agreement and before any work does take place, the location of our pipeline **MUST** be marked up and its position confirmed by digging trial holes with our personnel in attendance.



Pipeline markers

High pressure

We will be involved in any work taking place near high pressure pipelines. We will provide you with additional information that you **MUST** familiarise yourself with before carrying out any work.

The default method of excavating near high pressure gas pipelines MUST always be by hand.



Wind turbines

The UK Onshore Pipelines Operations Association (UKOPA) has identified the appropriate exclusion zone (distance from the base of the wind turbine mast to the edge of the pipeline) as 1.5 times the turbine height. Contact MUST be made with us during the planning stages of a wind turbine or wind farm.



Tree planting

If trees or shrubs are to be planted in the vicinity of our gas mains and services, the selection of tree or shrub type and how it's planted **MUST** be considered carefully. This is to avoid root damage to buried mains or services, and to ensure our subsequent excavations for main repair and maintenance won't damage the trees or shrubs.

Written approval from us **MUST** be obtained before any tree planting is carried out on a servitude/easement. Any approval we grant to plant trees

The following trees and those of similar size (deciduous or evergreen) **MUST NOT** be planted within 6m of the centre line of the main: ash, beech, birch, most conifers, elm, maple, lime, horse chestnut, oak, and sycamore. Apple and pear trees are also included in this category.

Dwarf apple stocks may be planted up to 3m of the centre line of the main.



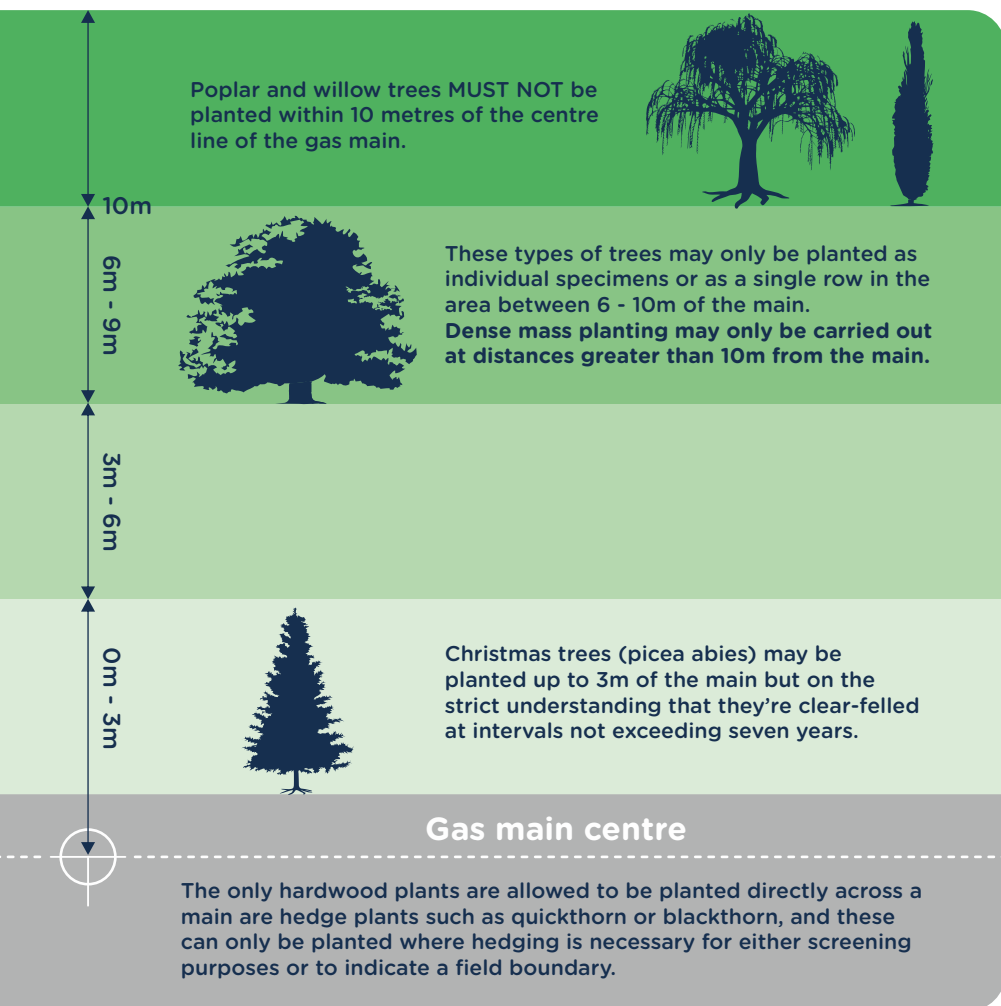
In cases where screening is required, the following are shallow rooting and may be planted close to the gas mains and services: blackthorn, broom, cotoneaster, elder, hazel, laurel, quickthorn, privet, snowberry and most ornamental shrubs.

Gas main centre

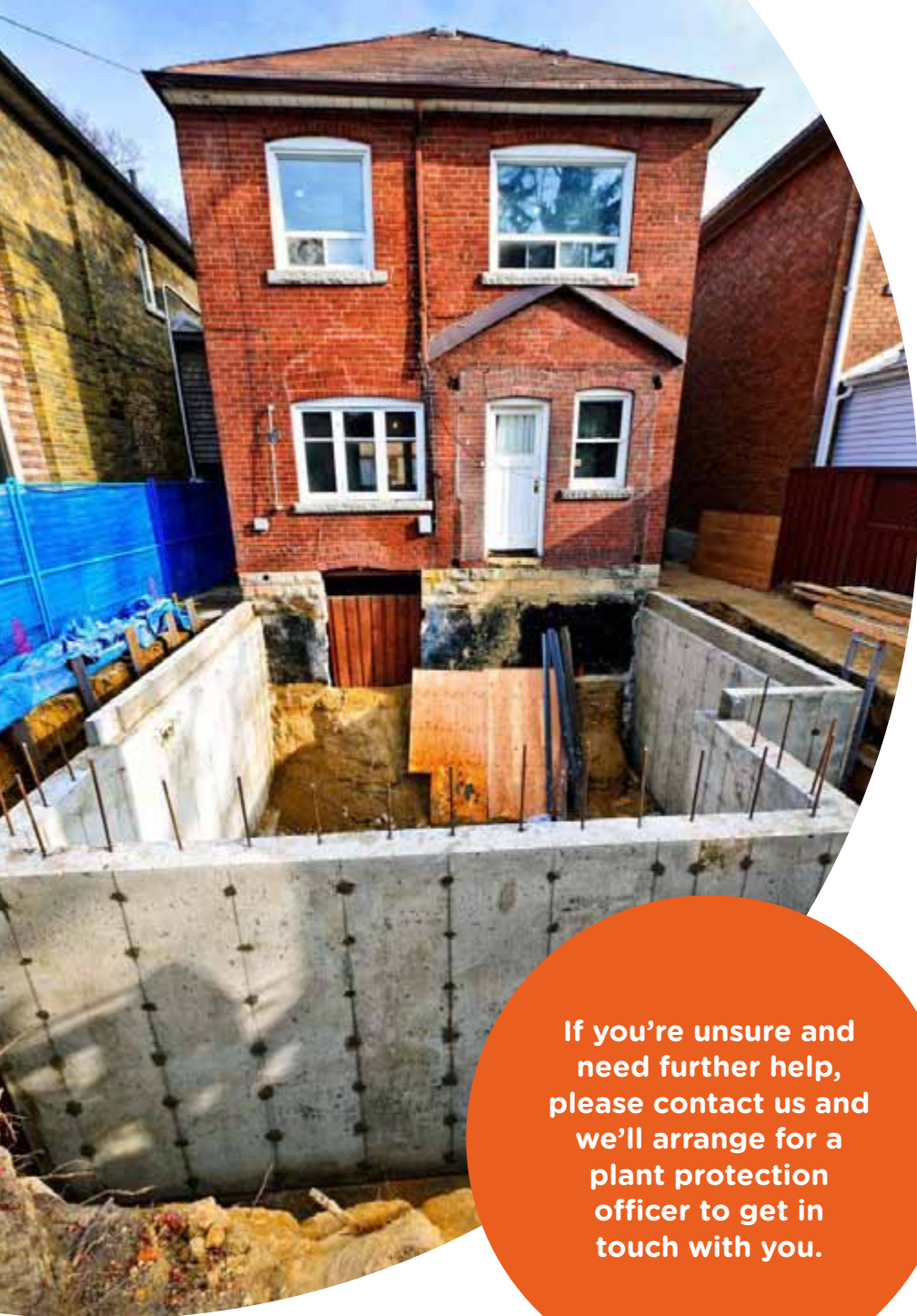
Raspberries, gooseberries and blackcurrants may be planted on the gas main, but a four metre strip, centred on the main, **MUST** be left clear at all times.

on a servitude/easement will be subject to us retaining the right to remove any tree, which in our opinion may become a danger to our mains in the future.

The written consent to plant trees will state what area may be planted and also the type of tree. The diagram details the specific species and the distances they **MUST** be planted from gas mains or services. You **MUST** contact us for further information.



Note: For further guidance, please refer to NJUG 10.



**If you're unsure and
need further help,
please contact us and
we'll arrange for a
plant protection
officer to get in
touch with you.**

Gas services/work in gardens

If you're going to be carrying out work around your home, or a third party is carrying out work on your behalf, we may send you a site map of our gas mains and services but your own gas service won't be marked.

The simplest way to understand the location of your gas service is to know where it enters your house.



< Your gas service pipe usually takes the shortest route to the gas main, as shown on the sample network map/drawing.



We provide a free plant location enquiry service and we're always happy to help.

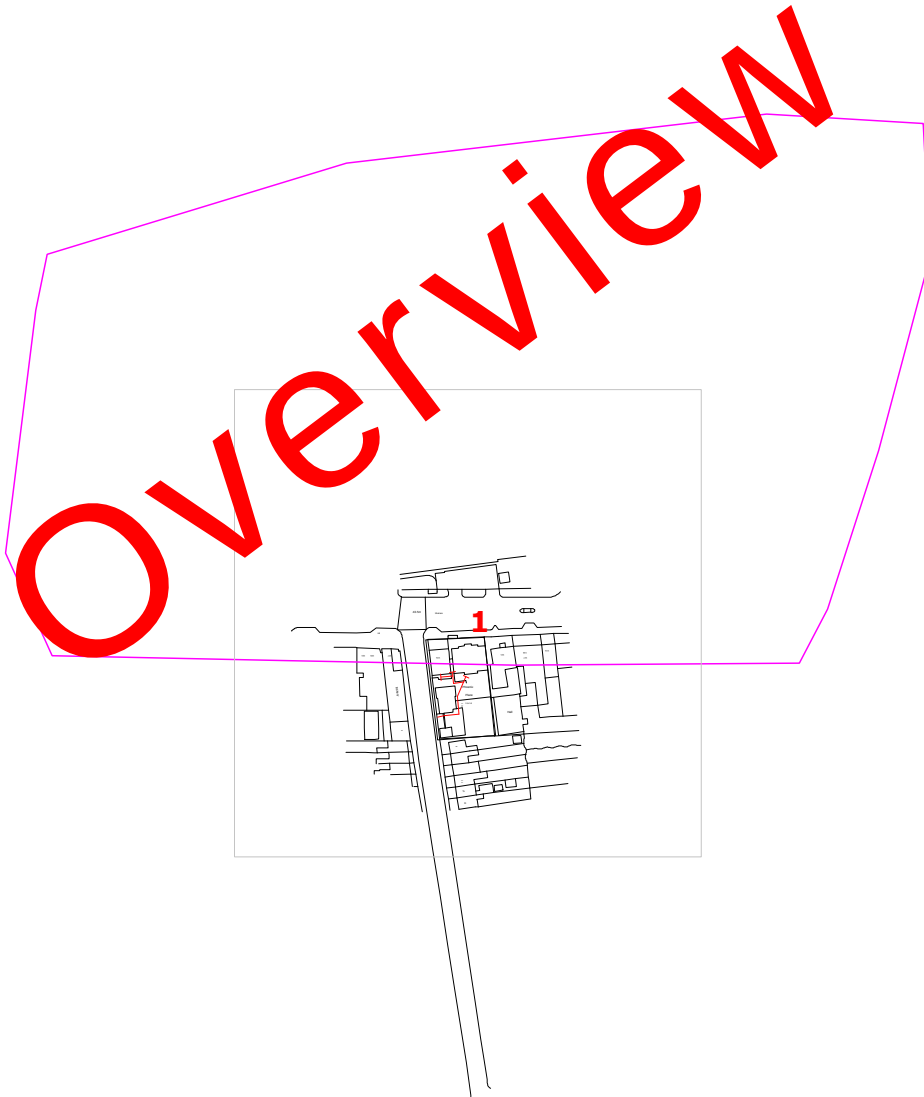
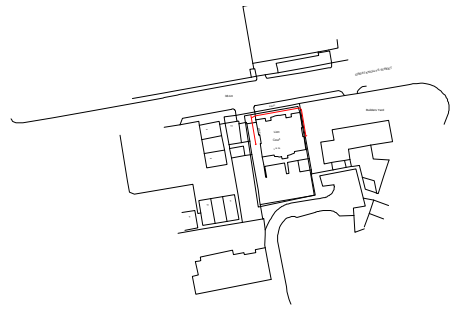


Visit our **Dig safely** pages on **sgn.co.uk**



0800 912 1722 *

*All calls are recorded and may be monitored



Date Requested: 06/01/2021

Job Reference: 20933627

Your Scheme/Reference: Chatham Street

Key for Mains & Service Pipework

	Existing LP mains or services operating up to 75 millibar gauge
	Existing MP mains or services operating between 75 millibar and 2 bar gauge
	Existing IP mains or services operating between 2 bar and 7 bar gauge

Whilst ESP Utilities Group Ltd (ESP) try to ensure the asset information we provide is accurate, the information is provided Without Prejudice and ESP accept no liability for claims arising from any inaccuracy, omissions or errors contained in this response. 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 ESP apparatus and all claims made against them by Third parties as a result of any interference or damage.

REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE SANCTION OF THE CONTROLLER OF HER MAJESTY'S STATIONARY OFFICE © CROWN COPYRIGHT RESERVED.

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ESP Utilities Group Ltd
Bluebird House
Mole Business Park
Leatherhead
Surrey
KT22 7BA
Phone: 01372 587500
Email: PlantResponses@espug.com

Dig Sites:

Area  Line 
Approx scale on A4 paper: 1:1000
(excluding Overview map)



Date Requested: 06/01/2021

Job Reference: 20933627

Your Scheme/Reference: Chatham Street

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Area  Line 
Approx scale on A4 paper: 1:1000
(excluding Overview map)

PRECAUTIONS TO BE TAKEN WHEN CARRYING OUT WORK IN THE VICINITY OF UNDERGROUND GAS PIPES

ADVICE TO SITE PERSONNEL

MANAGEMENT NOTE

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

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

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

Introduction

Damage to ESP Utilities Group's plant can result in uncontrolled gas escapes which may be dangerous. In addition these occurrences can cause expense, disruption of work and inconvenience to the public.

Various materials are used for gas mains and services. Cast Iron, Ductile Iron, Steel and Plastic pipes are the most widely found. Modern Plastic pipes are either bright yellow or orange in colour.

Cast Iron and Ductile Iron water pipes are very similar in appearance to Cast Iron and Ductile Iron gas pipes and if any Cast Iron or Ductile Iron pipe is uncovered, it should be treated as a gas pipe. ESP Utilities Group do not own any metallic gas pipes but their gas network infrastructures may be connected to Cast Iron, Ductile Iron or Steel pipes owned by Distribution Network Operators.

The following general precautions apply to Intermediate Pressure (2-7barg MOP), Medium Pressure (75mbarg-2barg MOP), Low Pressure (up to 75mbarg MOP) and other gas mains and services likely to be encountered in general site works and are referred to within this document as '**pipes**'.

Locating Gas Pipes

It should be assumed when working in urban and residential areas that gas mains and services are likely to be present. On request, ESP Utilities Group will give approximate locations of pipes derived from their records. The records do not normally show the position of service pipes but their probable line can be deducted from the gas meter position. ESP Utilities Group's staff will be pleased to assist in the location of gas plant and provide advice on any precautions that may be required. The records and advice are given in good faith but cannot be guaranteed until hand excavation has taken place. Proprietary pipe and cable locators are available although generally these will not locate plastic pipes.

Safe working Practices

To achieve safe working conditions adjacent to gas plant the following must be observed:

Observe any specific request made by ESP Utilities Group's staff.

Gas pipes must be located by hand digging before mechanical excavation. Once a gas pipe has been located, mechanical excavation must proceed **with care**. A mechanical excavator must not in any case be used within 0.5 metre of a gas pipe and greater safety distances may be advised by ESP Utilities Group depending on the mains maximum operating pressure (MOP).

Where heavy plant may have to cross the line of a gas pipe during construction work, the number of crossing points should be kept to a minimum. Crossing points should be clearly indicated and crossings at other places along the line of the pipe should be prevented.

Where the pipe is not adequately protected by an existing road, crossing points should be suitably reinforced with sleepers, steel plates or a specially constructed reinforced concrete raft as necessary. ESP Utilities Group staff will advise on the type of reinforcement necessary.

No explosives should be used within 30 metres of any gas pipe without prior consultation with ESP Utilities Group.

ESP Utilities Group must be consulted prior to carrying out excavation work within 10 metres of any above ground gas installation.

Where it is proposed to carry out piling or boring within 15 metres of any gas pipe, ESP Utilities Group should be consulted prior to the commencement of the works.

Access to gas plant must be maintained at all times during on site works.

Proximity of Other Plant

A minimum clearance of 300 millimetres (mm) should be allowed between any plant being installed and an existing gas main to facilitate repair, whether the adjacent plant be parallel to or crossing the gas pipe. No apparatus should be laid over and along the line of a gas pipe irrespective of clearance.

No manhole or chambers shall be built over or around a gas pipe and no work should be carried out which results in a reduction of cover or protection over a pipe, without consultation with ESP Utilities Group.

Support and Backfill

Where excavation of trenches adjacent to any pipe affects its support, the pipe must be supported to the satisfaction of ESP Utilities Group and must not be used as an anchor or support in any way. In some cases, it may be necessary to divert the gas pipe before work commences.

Where a trench is excavated crossing or parallel to the line of the gas pipe, the backfill should be adequately compacted, particularly beneath the pipe, to prevent any settlement which could subsequently cause damage to the pipe.

In special cases it may be necessary to provide permanent support to the gas pipe, before backfilling and reinstatement is carried out. Backfill material adjacent to gas plant must be selected fine material or sand, containing no stones, bricks or lumps of concrete, etc., placed to a minimum depth of 150mm around the pipes and well compacted by hand. No power compaction should take place until 300mm of selected fine fill has been suitably compacted.

If the road construction is in close proximity to the top of the gas pipe, a "cushion" of selected fine material such as sand must be used to prevent the traffic shock being transmitted to the gas pipe. The road construction depth must not be reduced without permission from the local Highway Authority.

No concrete or other hard material must be placed or left under or adjacent to any Cast Iron pipe as this may cause fracture of the pipe at a later date.

Concrete backfill should not be used closer than 300 mm to the pipe.

Damage to Coating

Where a gas pipe is coated with special wrapping and this is damaged, even to a minor extent ESP Utilities Group must be notified so that repairs can be made to prevent future corrosion and subsequent leakage.

Welding or "Hot Works"

When welding or other "hot works" involving naked flames are to be carried out in close proximity to gas plant and the presence of gas is suspected, ESP Utilities Group must be contacted before work commences to check the atmosphere. Even when a gas free atmosphere exists care must be taken when carrying out hot works in close proximity to gas plant in order to ensure that no damage occurs.

Particular care must be taken to avoid damage by heat or naked flame to plastic gas pipes or to the protective coating on other gas pipes.

Leakage from Gas Mains or Services

If damage or leakage is caused or an escape of gas is smelt or suspected the following action should be taken at once:

- ❖ Remove all personnel from the immediate vicinity of the escape;
- ❖ Contact the National Gas Emergency Service on: **0800 111 999**;
- ❖ Prevent any approach by the public, prohibit smoking, extinguish all naked flames or other source of ignition for at least 15 metres from the leakage;
- ❖ Assist gas personnel, Police or Fire Service as requested.

REMEMBER - IF IN DOUBT; SEEK ADVICE FROM ESP UTILITIES GROUP.

ESP Utilities Group can be contacted at:

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

Office Tel: 01372 587 500; **Fax:** 01372 377 996

National Gas Emergency Number:
0800 111 999*

National Grid Electricity Emergency Number:
0800 40 40 90*

* Available 24 hours, 7 days/week.
Calls may be recorded and monitored.

www.cadentgas.com

Date: 12/01/2021

Our Ref: XX_XX_3SWX_771666

Your Ref: Chatham Street

RE: Proposed Works, CHATHAM STREET

Thank you for your enquiry which was received on 12/01/2021.

An assessment has been carried out with respect to Cadent Gas Limited, National Grid Electricity Transmission plc's and National Grid Gas Transmission plc's apparatus. Please note it does not cover the items listed in the section "Your Responsibilities and Obligations", including gas service pipes and related apparatus.

For details of Network areas please see the Cadent website (<http://cadentgas.com/Digging-safely/Dial-before-you-dig>) or the enclosed documentation.

Searches based on your enquiry have identified that there is no record of apparatus in the vicinity of your enquiry.

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. Plant Protection will endeavour to provide an initial assessment within 14 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.

Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your scheduled 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 Cadent and/or National Grid's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to Cadent Gas Limited, National Grid Electricity Transmission plc (NGET) and National Grid Gas Transmission plc (NGGT) and apparatus. This assessment does **NOT** include:

- | Cadent and/or National Grid's legal interest (easements or wayleaves) in the land which restricts activity in proximity to Cadent and/or 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 Plant Protection.
- | Gas service pipes and related apparatus
- | Recently installed apparatus
- | Apparatus owned by other organisations, e.g. 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. Further "Essential Guidance" in respect of these items can be found on either the [National Grid](#) or [Cadent](#) website.

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to Cadent and/or National Grid's easements or wayleaves nor any planning or building regulations applications.

Cadent Gas Limited, NGGT and NGET 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 Plant Protection team via e-mail ([click here](#)) or via the contact details at the top of this response.

Yours faithfully

Plant Protection Team

GUIDANCE

Standard Guidance

Essential Guidance document:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=8589934982>

General Guidance document:

<http://www2.nationalgrid.com/WorkArea/DownloadAsset.aspx?id=35103>

Excavating Safely in the vicinity of gas pipes guidance (Credit card):

<http://www.nationalgrid.com/NR/rdonlyres/A3D37677-6641-476C-9DDA-E89949052829/44257/ExcavatingSafelyCreditCard.pdf>

Excavating Safely in the vicinity of electricity cables guidance (Credit card):

<http://www.nationalgrid.com/NR/rdonlyres/35DDEC6D-D754-4BA5-AF3C-D607D05A25C2/44858/ExcavatingSafelyCreditCardelectricitycables.pdf>

Copies of all the Guidance Documents can also be downloaded from the [National Grid](#) and [Cadent](#) websites.

ENQUIRY SUMMARY

Received Date

12/01/2021

Your Reference

Chatham Street

Location

Centre Point: 470876, 173489

X Extent: 133

Y Extent: 142

Location Description: CHATHAM STREET

Map Options

Paper Size: A4

Orientation: LANDSCAPE

Requested Scale: 1250

Actual Scale: N/A

Real World Extents: N/A

Recipients

utilitysiteearch@outlook.com

Enquirer Details

Organisation Name: UTILITYSITESEARCH

Contact Name: Paul Hodgson

Email Address: utilitysiteearch@outlook.com

Telephone: 01302352116 (07912480735)

Address: Towpath Cottage, Top Lane, Braithwaite, Doncaster, Doncaster, DN7 5SX

Description of Works

GPR

Enquiry Type

Proposed Works

Activity Type

General Excavation

Work Types

Work Type: Deep Excavation (greater than or equal to 0.3m)

GTC Apparatus Not Found In Search Area

Our Plant Enquiry Service

Thank you for your enquiry concerning apparatus in the vicinity of your proposed work. GTC can confirm that we have no apparatus in the vicinity but please note that other asset owners may have and ensure all utility owners have been consulted. For your records, the search area is shown in the attached map.

Please note our assets now include those owned and operated by:

- GTC Pipelines Limited
- Independent Pipelines Limited
- Quadrant Pipelines Limited
- Electricity Network Company Limited
- Independent Power Networks Limited
- Independent Water Networks Limited
- Open Fibre Networks Limited
- Independent Community Heating Limited

If you have any queries or require any further information please do not hesitate to contact us.

Your sincerely,

GTC Plant Enquiry Service.

GTC
Synergy House
Woolpit Business Park
Woolpit
Bury St Edmunds
Suffolk, IP30 9UP
Tel: 01359 240363
plant.enquiries@gtc-uk.co.uk

Our Ref: 20933627 Your Ref: Chatham Street

Wednesday, 06 January 2021

SSE Networks - Asset Network Plans

We have sent you the plans of our network records within the area requested. You will shortly receive responses each of the following; any High Voltage Mains cables and Low Voltage Mains cables.

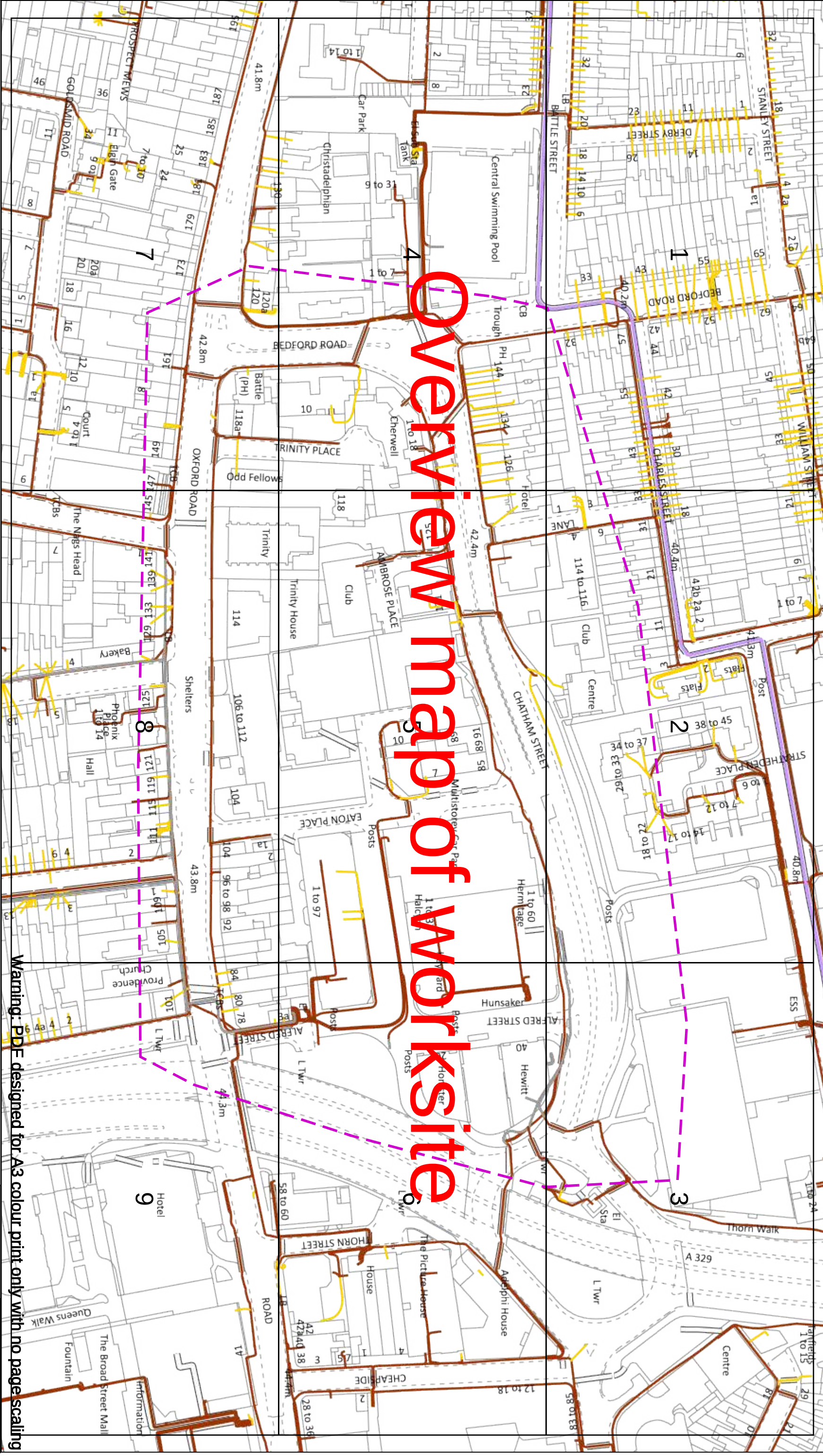
Attached to this email is the 'Guide to Interpreting' which includes the legends for the plans on pages 7-9.

If a Service Cable is not shown on our maps sent, and you require the Cable to be Traced, please contact the General Enquiries Department on 0800 048 3516 (option 3) or via email, ge@ssen.co.uk

If you need further information on our network in this area or a quotation for any required works, please contact the Connections & Engineering Department on 0800 048 3516 or via email, connections@sse.com

Kind Regards,

Asset Data Team
01256 337 294
Asset.data@sse.com



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Dig Sites Area: Line:

WARNING

There may have been subsequent alteration to the surface levels. Trial holes must be undertaken to determine position and depths of cables. HS (G) 47 Booklet from the Health and Safety Executive – Avoiding Danger from Buried Cables – should be consulted before commencing excavation work.

WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)		Services	
LV (Low Voltage)	Up to 1,000V	Services	LV
HV (High Voltage)	Over 1,000V to 11,000V	Footpath/Virginade	0.45m
EHV (Extra High Voltage)	22,000V to 132,000V	Road Crossing	0.6m
Transmission	275,000V and 400,000V	Agricultural	1m
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid		EHV	
Services	Up to 1,000V	0.45m	0.6m
Footpath/Virginade	Over 1,000V to 11,000V	0.6m	0.8m
Road Crossing	22,000V to 132,000V	0.6m	0.75m
Agricultural	275,000V and 400,000V	1m	1.1m

Legend	
Service Cable	Role: Existing location
2 - 3kV	Role: Structure: Existing location - Single
6kV	Role: Structure: Existing location - H
11kV	Role: Structure: Existing location - H
22kV	Role: Structure: Existing location - H
33kV	Role: Structure: Existing location - H
66kV	Role: Structure: Existing location - H
110kV	Role: Structure: Existing location - H
132kV	Role: Structure: Existing location - H
220kV	Role: Structure: Existing location - H
400kV	Role: Structure: Existing location - H
Flare Cable	Role: Structure: Existing location - H
Pilot Cable	Role: Structure: Existing location - H



Scottish and Southern Energy Power Distribution Ltd.

Registered Office: Inverlornock House,
200 Dunkeld Road, Perth, PH1 3AQ
Registered in Scotland No SC213459

If you're unsure & need to seek advice before commencing excavations please contact:
General Enquiries: 0800 048 3316

Subject to revision – Master held by SSEN Asset Data Team:
Asset Data@ssen.com
01256 337 294



Dig Sites Area: Line:

WARNING

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)			
LV (Low Voltage) and Services			
EHV (High Voltage)			
EHV (Extra High Voltage)			
Transmission			
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid			
Footpath/Unmade			
Road Crossing			
Agricultural			
Services	LV	EHV	EHV
0.45m	0.45m	0.6m	0.8m
0.6m	0.6m	0.75m	0.9m
1m	1m	1m	1.1m

Legend

Service Cable

2 - 33kV

6.6kV

11kV

33kV

66kV

132kV

275kV

400kV

Pilot Cable

Distribution Structures (Block)

Pole, Existing Location

Pole Structure, Existing Location - H

Duct Route

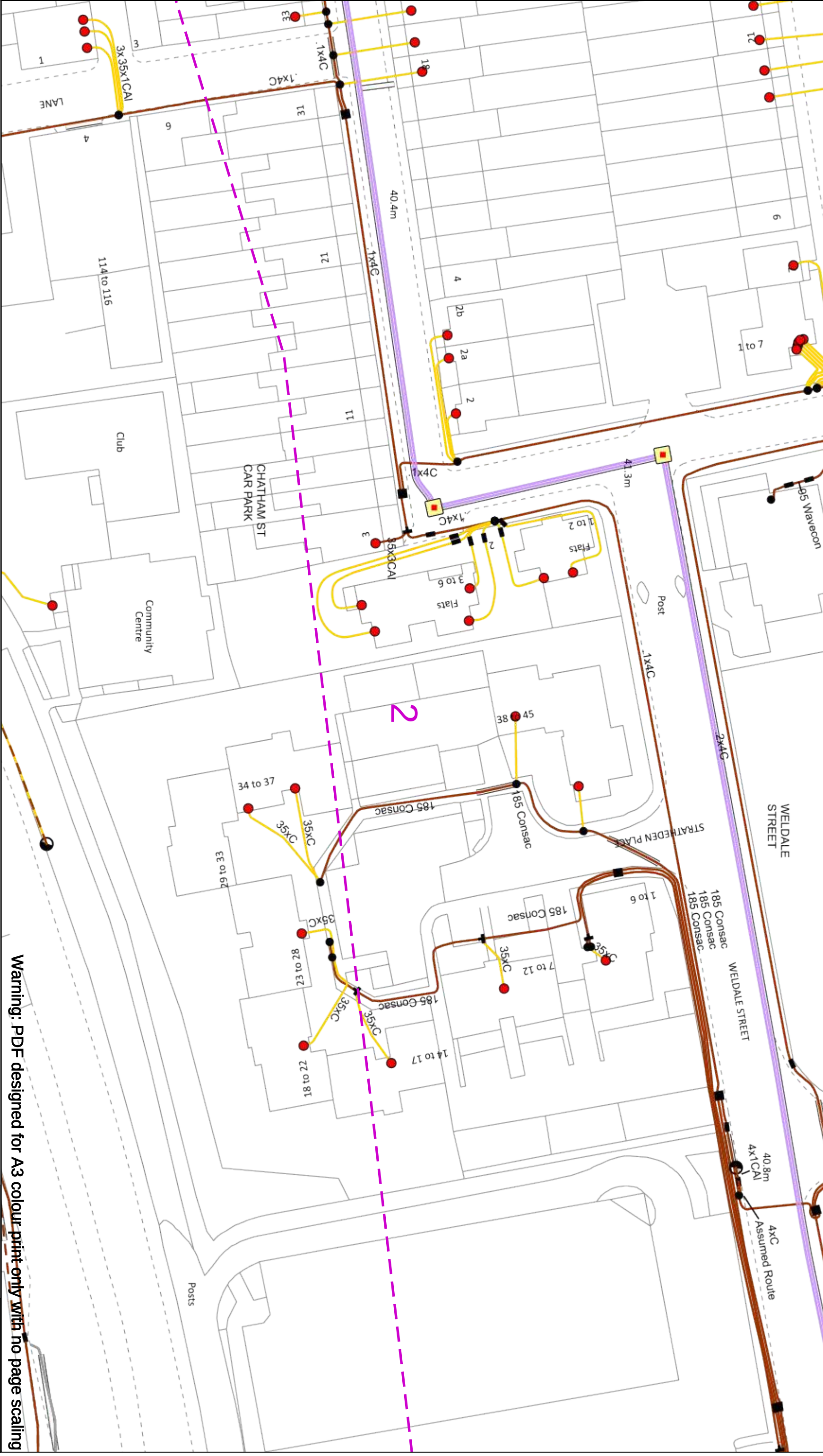
Cross Section Route



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Dig Sites Area: Line:

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)	
LV (Low Voltage) and Services	Up to 1,000V
HV (High Voltage)	Over 1,000V to 11,000V
EHV (Extra High Voltage)	22,000V to 132,000V
Transmission	275,000V and 400,000V

NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID	
Services	LV HV EHV
Footpath/Virginade	0.45m 0.6m 0.8m
Road Crossing	0.6m 0.75m 0.9m
Agricultural	1m 1m 1.1m

Legend

Service Cable

- 1V Mains
- 2 - 33kV
- 66kV
- 132kV
- 275kV
- 400kV
- Power Cable

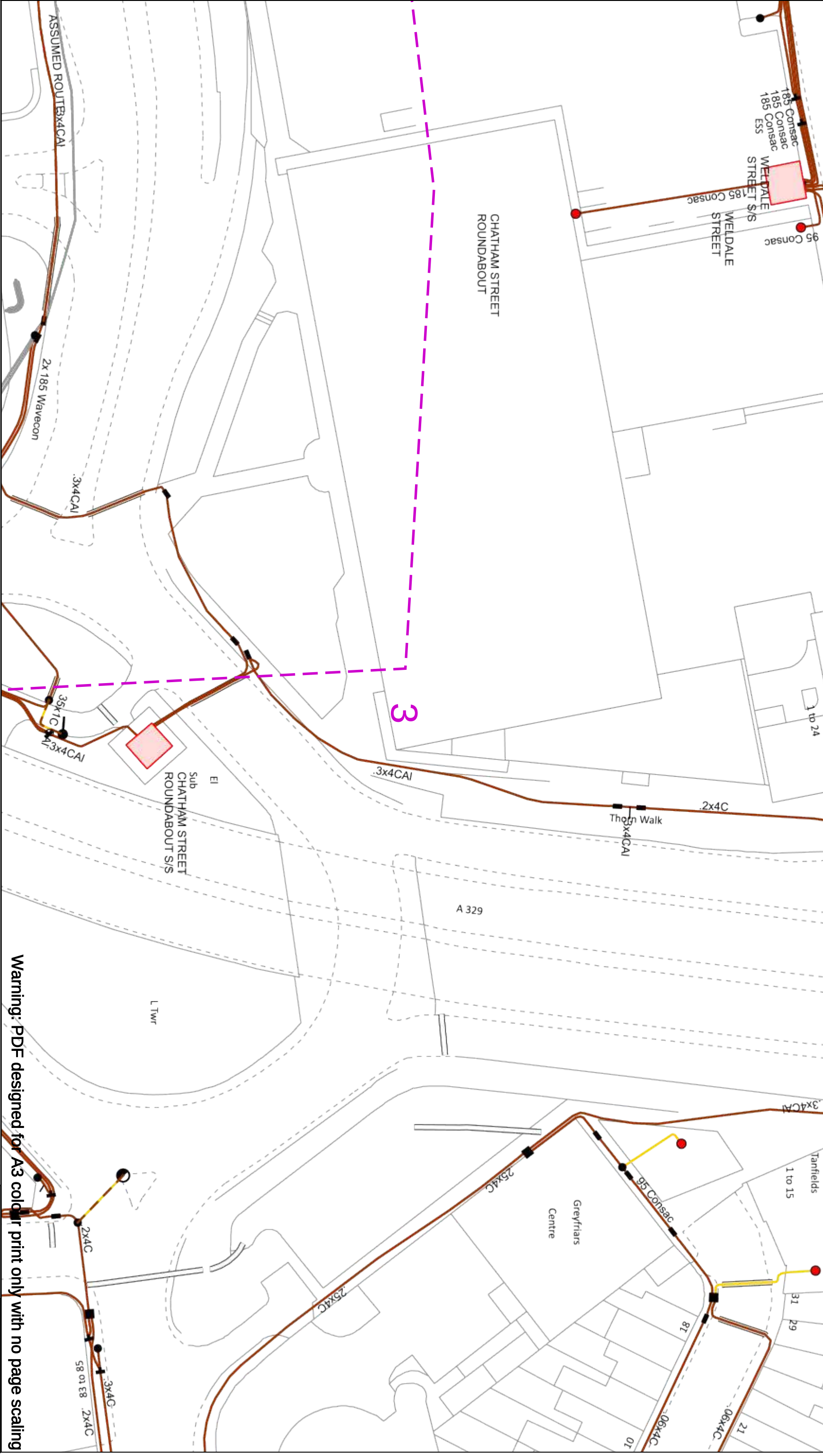
Distribution Structures (Blended)

- Pole, Existing Location
- Pole Structure, Existing Location - H
- Duct Route
- Cross Section Route



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Dig Sites Area: Line:

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

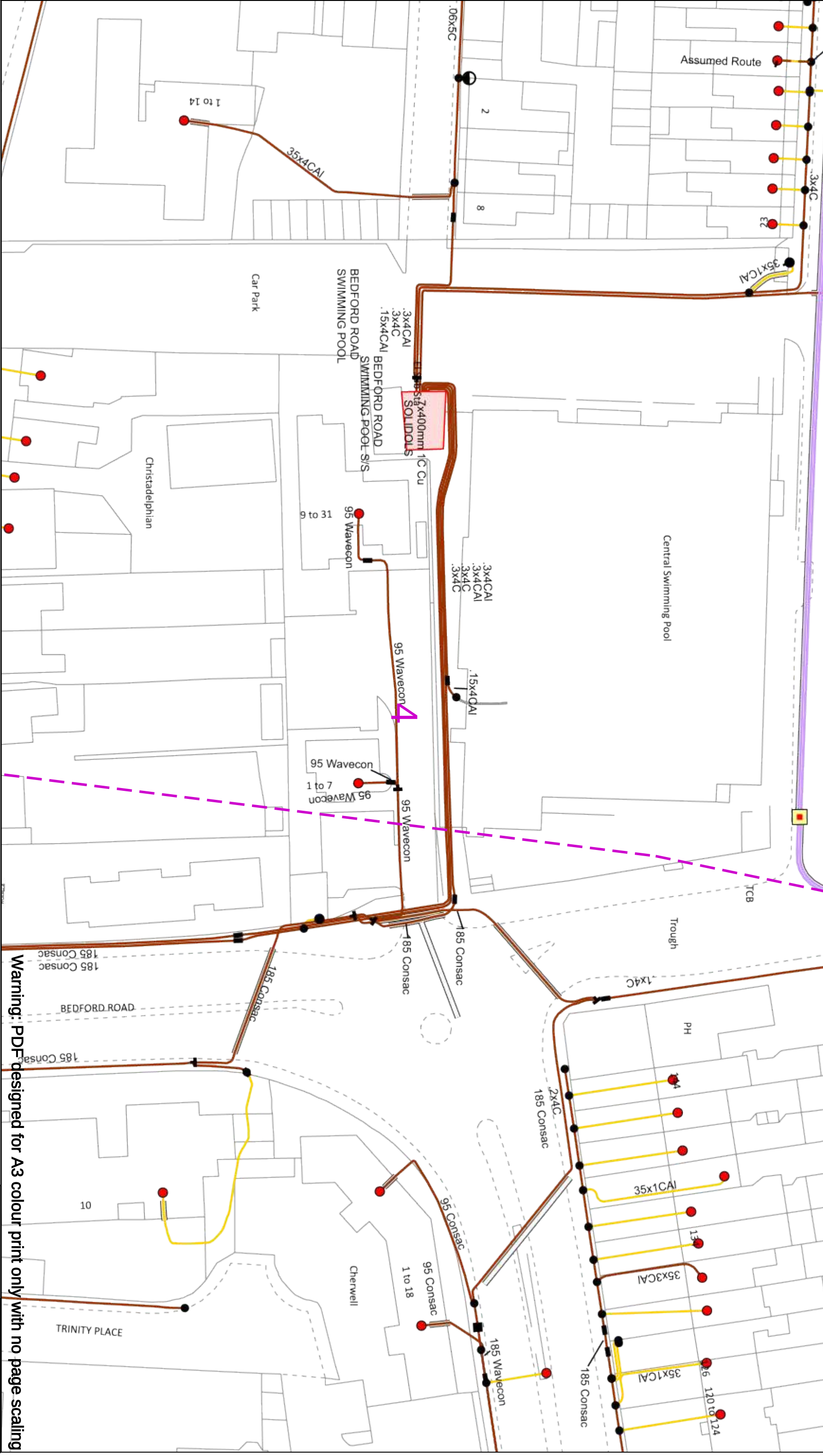
Voltages (V)		Services	
LV (Low Voltage) and Services	Up to 1,000V	LV	EHV
HV (High Voltage)	Over 1,000V to 11,000V	0.45m	0.6m
EHV (Extra High Voltage)	22,000V to 132,000V	0.6m	0.75m
Transmission	275,000V and 400,000V	1m	1.1m
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid		Services	
Footpath/Virginade	0.45m	0.45m	0.6m
Road Crossing	0.6m	0.6m	0.75m
Agricultural	1m	1m	1.1m

Legend	
Service Cable	Distribution Structures (Block)
LV Mains	Point Structure, Existing Location - Single
2 - 33kV	Point Structure, Existing Location - H
6.6kV	Duct Route
11kV	Cross Section Route
22kV	
33kV	
66kV	
110kV	
132kV	
275kV	
400kV	
Pilot Cable	



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Dig Sites Area: Line:

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)		Services	
LV (Low Voltage) and Services		Up to 1,000V	
EHV (High Voltage)		Over 1,000V to 11,000V	
EHV (Extra High Voltage)		22,000V to 132,000V	
Transmission		275,000V and 400,000V	
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid		Services	
Footpath/Unmade		0.45m	0.6m
Road Crossing		0.6m	0.75m
Agricultural		1m	1.1m

Legend

Service Cable

- LV Mains
- 2 - 33kV
- 66kV
- 132kV
- 220kV
- 400kV
- Power Cable

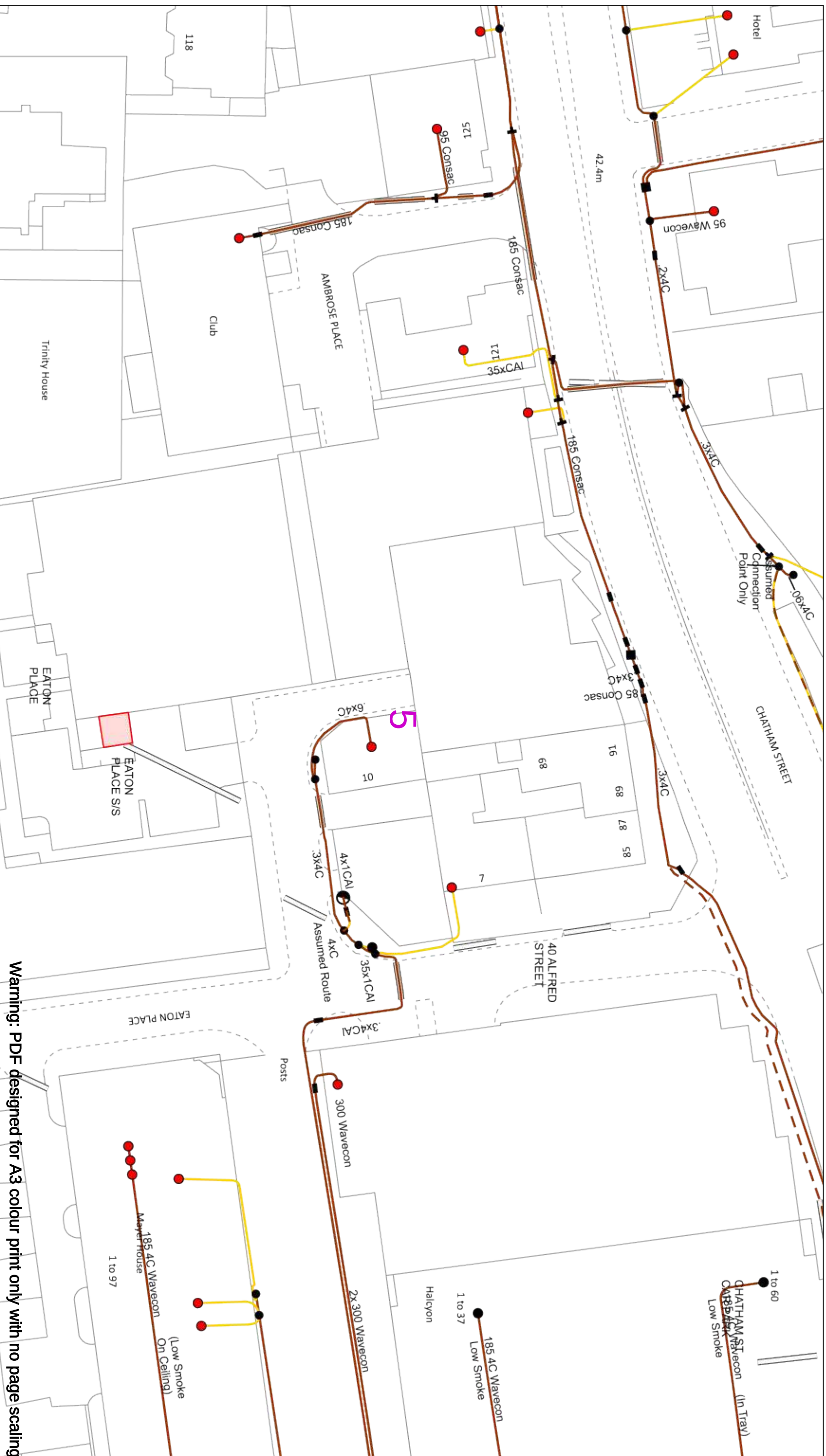
Distribution Structures (Blacked)

- Role, Existing Location
- Role Structure, Existing Location - H
- Duct Route
- Cross Section Route



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Dig Sites

Area:

Line:

Line: -----

WARNING

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

	voltages (V)	
LV (low Voltage) and Services	Up to 1,000V	
HV (high Voltage)	Over 1,000V to 11,000V	
EHV (extra high Voltage)	Over 100,000 to 132,000V	
Transmission	225,000V and 400,000V	

NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID		
	LV	EHV
Services	0.5m	0.5m
Footpath/Unmade	0.45m	0.8m
Road	0.6m	0.75m
Crossing	0.6m	0.9m
Agricultural	1m	1.1m

Legend

- Single Cable
- LV Main
- 2 - 3 kV
- 6.6V
- 11kV
- 22kV
- 38kV
- 66kV
- 132kV
- 275kV
- 400kV
- Fibre Optic
- Pilot Cable

Ductation Structures Identified

- Pipe, Existing location
- Pipe Structure, Existing location - Single
- Pipe Structure, Existing location - H

Duct Route

Cross section Route



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Dig Sites Area: Line:

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)	
LV (Low Voltage) and Services	Up to 1,000V
HV (High Voltage)	Over 1,000V to 11,000V
EHV (Extra High Voltage)	22,000V to 132,000V
Transmission	275,000V and 400,000V

NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid	
Services	LV HV EHV
Footpath/Unmade	0.45m 0.6m 0.8m
Road Crossing	0.6m 0.6m 0.75m
Agricultural	1m 1m 1.1m

Legend

Service Cable

- LV Mains
- 2 - 33kV
- 66kV
- 11kV
- 132kV
- 33kV
- 66kV
- 132kV
- 275kV
- 400kV
- Pilot Cable

Distribution Structures (Black)

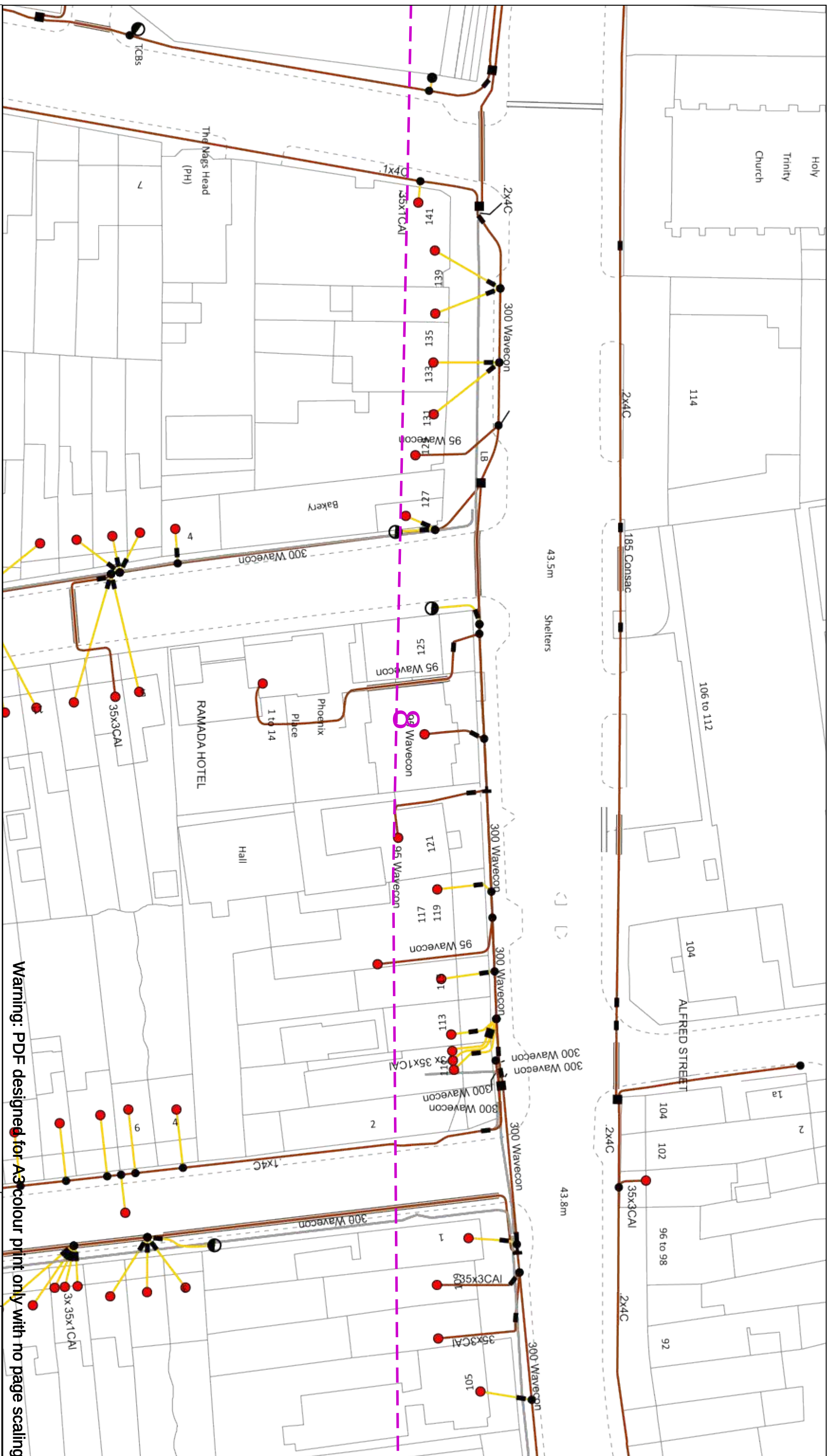
- Pole, Existing Location
- Pole Structure, Existing Location - H
- Duct Route
- Cross Section Route



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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

		Voltage (V)		
		Up to 1,000V	Over 1,000V to 11,000V	Over 11,000V to 132,000V
LV (Low Voltage) and Services				
EHV (High Voltage)				
EHV (Extra High Voltage)				
Transmission				
		275,000V and 400,000V		

Legend

- Signal Cable
- LV Mains
- 2 - 3.3kV
- 6.6kV
- 11kV
- 22kV
- 33kV
- 66kV
- 132kV
- 275kV
- 400kV
- Fiber Optic
- Pilot Cable

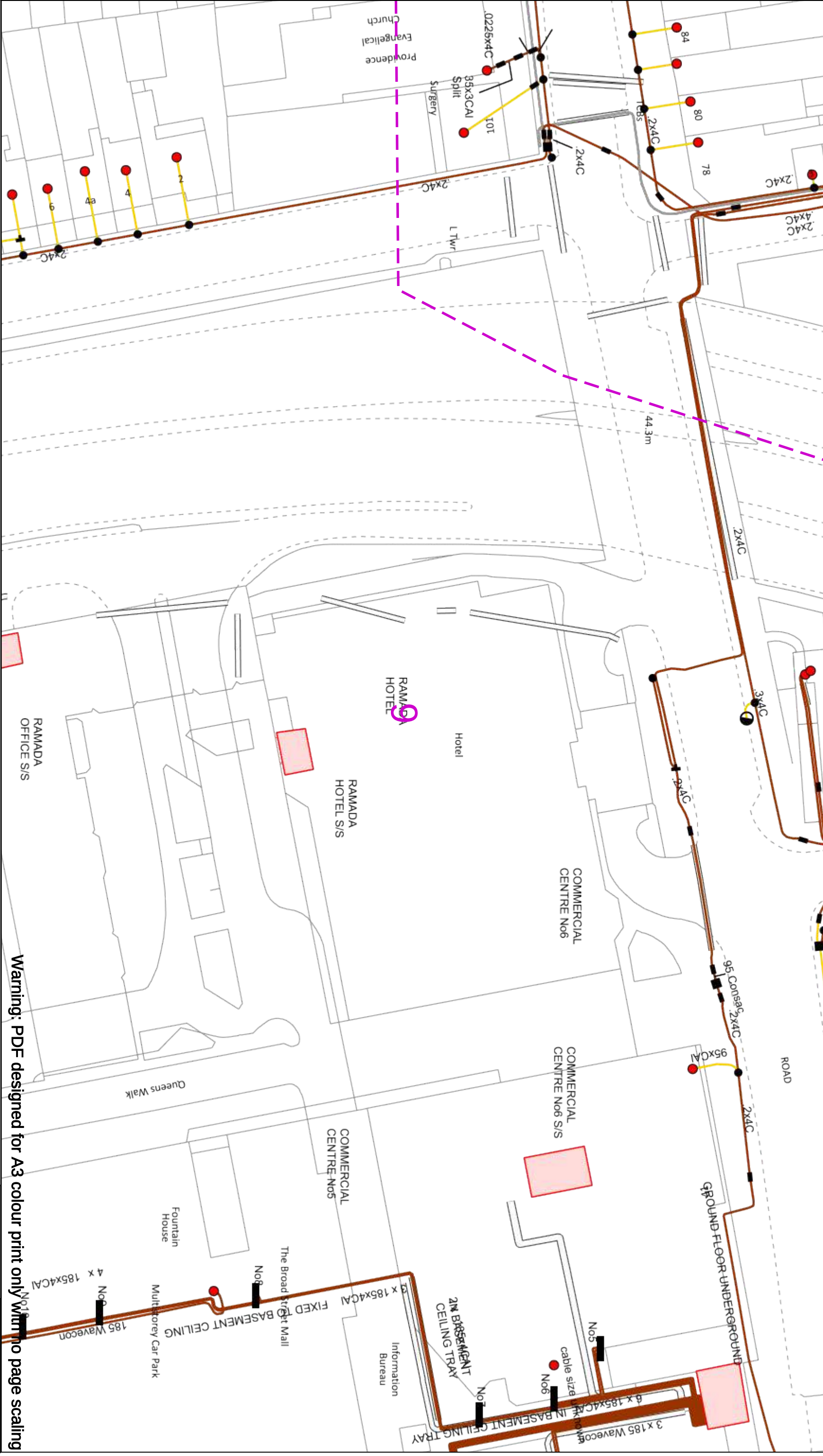
Distribution Structures (Legend)

- Role, Existing Location
- Role Structure, Existing Location - Single
- Role Structure, Existing Location - M

Duct Route

Cross section Route

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Dig Sites Area: Line:

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)		Services	
LV (Low Voltage)	Up to 1,000V	Services	LV
EHV (High Voltage)	Over 1,000V to 11,000V		EHV
EHV (Extra High Voltage)	22,000V to 132,000V		EHV
Transmission	275,000V and 400,000V		EHV
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid		Services	
Footpath/Virginade	0.45m	0.45m	0.6m
Road Crossing	0.6m	0.6m	0.75m
Agricultural	1m	1m	1.1m

Legend

Service Cable

- LV Mains
- 2 - 33kV
- 6.6kV
- 11kV
- 132kV
- 275kV
- 400kV
- Power Cable

Distribution Structures (Barefoot)

Point, Existing Location

Point, Existing Location - Single

Point, Existing Location - H

Duct Route

Duct Route

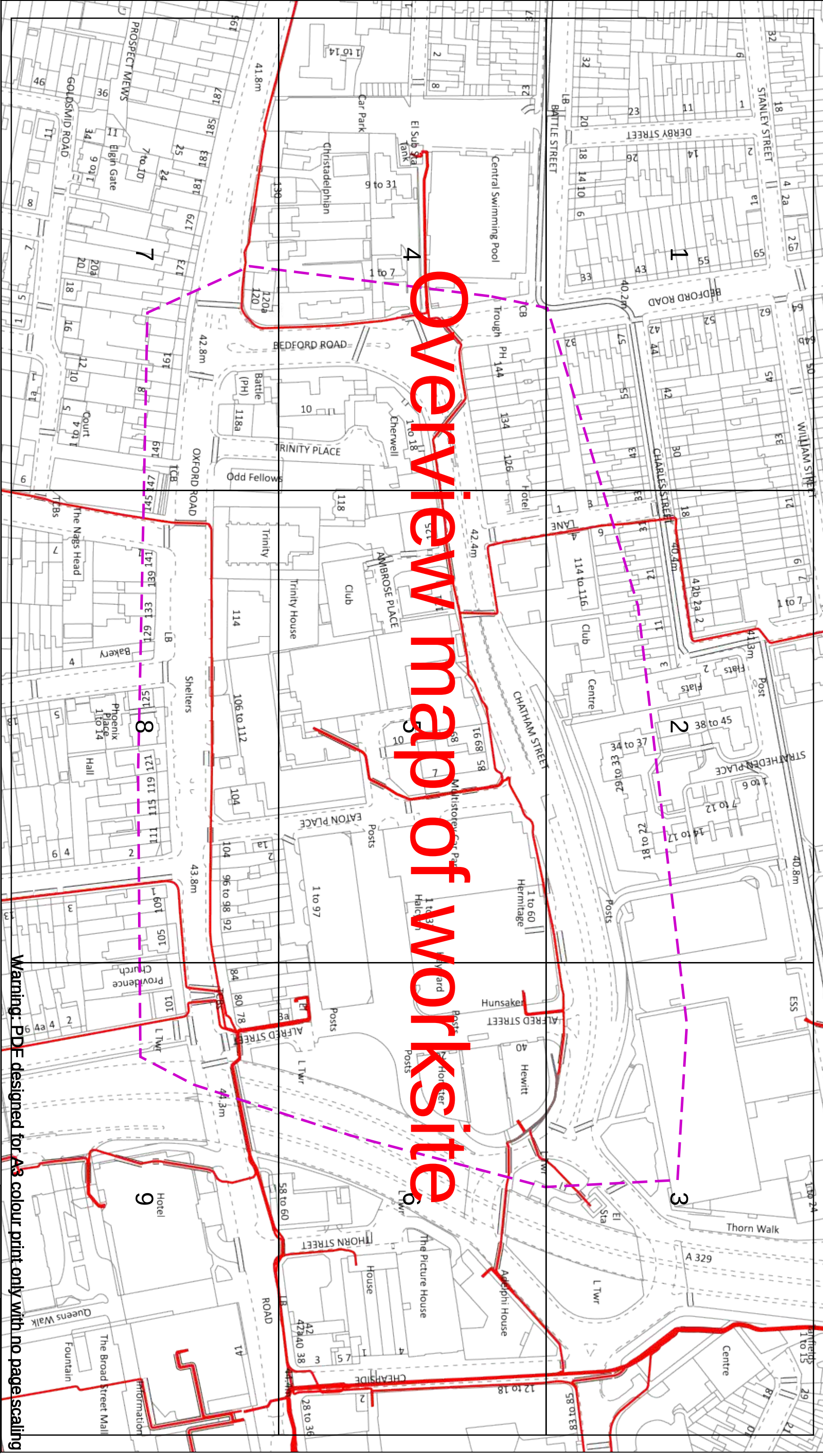
Cross Section Route

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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)	
LV (Low Voltage) and Services	Up to 1,000V
HV (High Voltage)	Over 1,000V to 11,000V
EHV (Extra High Voltage)	22,000V to 132,000V
Transmission	275,000V and 400,000V
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid	
Services	LV HV EHV
Footpath/Virginade	0.45m 0.6m 0.8m
Road Crossing	0.6m 0.6m 0.9m
Agricultural	1m 1m 1.1m

Legend

Service Cable

LV Mains

2 - 33kV

66kV

11kV

33kV

66kV

132kV

275kV

400kV

Power Cable

Pilot Cable

Distribution Structures (Detailed)

Role, Existing Location

Pole Structure, Existing Location - H

Pole Structure, Existing Location - H

Duct Route

Cross Section Route



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WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES G56 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)			
LV (Low Voltage) and Services	Up to 1,000V		
HV (High Voltage)	Over 1,000V to 11,000V		
EHV (Extra High Voltage)	22,000V to 132,000V		
Transmission	275,000V and 400,000V		
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID			
	Services	LV	HV
Footpath/Virginade	0.45m	0.45m	0.6m
Road Crossing	0.6m	0.6m	0.75m
Agricultural	1m	1m	1.1m

Legend

Service Cable

- LV Mains
- 2 - 33kV
- 66kV
- 132kV
- 275kV
- 400kV
- Pilot Cable

Distribution Structures (Blacked)

Pole, Existing Location

Pole Structure, Existing Location - H

Duct Route

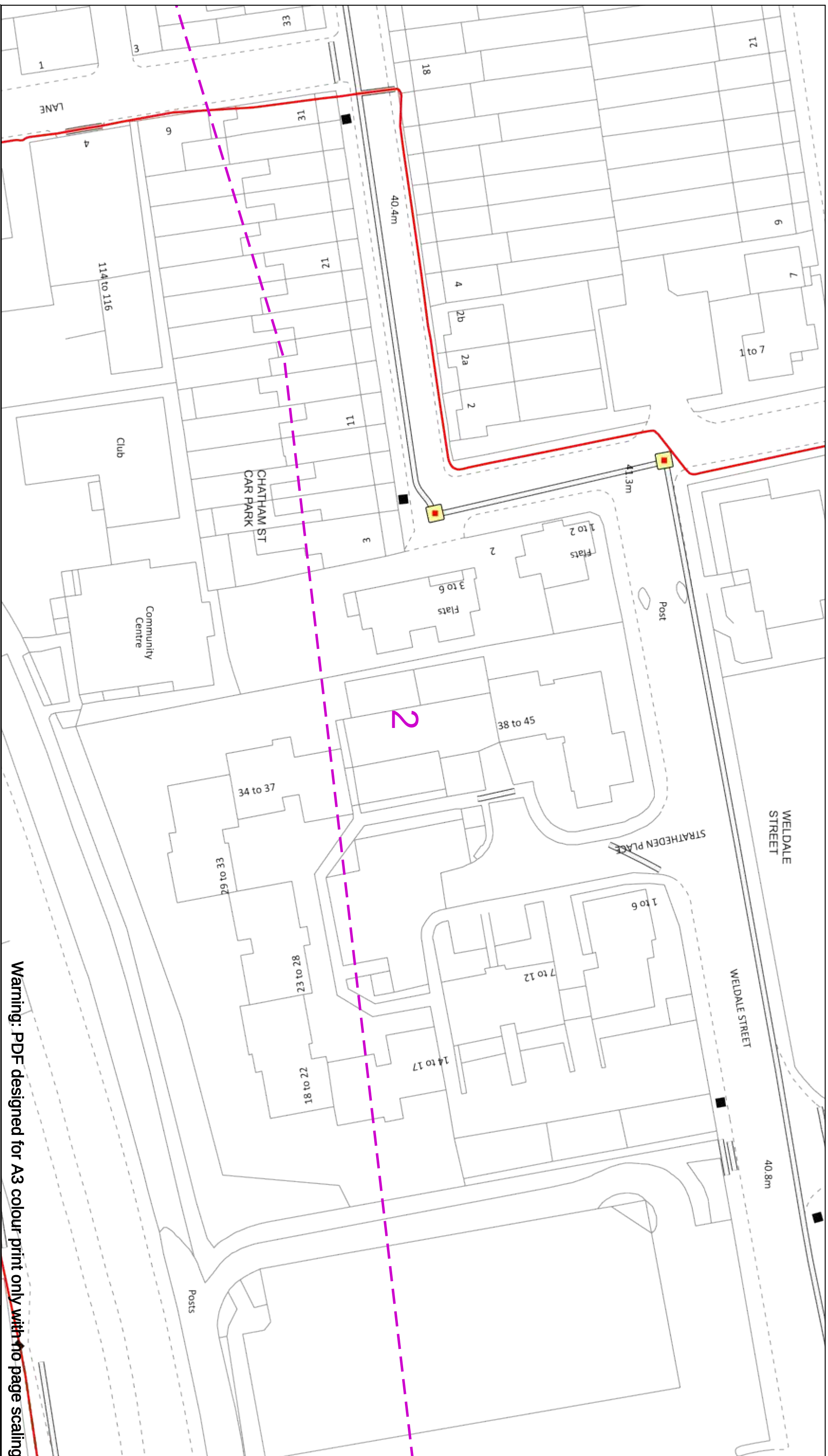
Cross Section Route



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Dig Sites

Area:

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WARNING

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		Voltages (V)	
LV (Low Voltage) and Services		Up to 1,000V	
HV (High Voltage)		Over 1,000V to 11,000V	
EHV (Extra High Voltage)		22,000V to 132,000V	
Transmission		275,000V and 400,000V	
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID			
Services	LV	EHV	
Footpath/Unmade	0.5m	0.5m	0.5m
Road/crossing	0.5m	0.6m	0.75m
Agricultural	1m	1m	1.3m

Legend

- Service Cable
- LV Mains
- 2 - 3.3kV
- 6.6kV
- 11kV
- 33kV
- 66kV
- 132kV
- 275kV
- 400kV
- Fibre Optic
- Pilot Cable

Distribution Structures (Isolated)

Pole, Existing Location

Pole Structure, Existing Location - Single

Pole Structure, Existing Location - H

Duct Route

Cross Section Route



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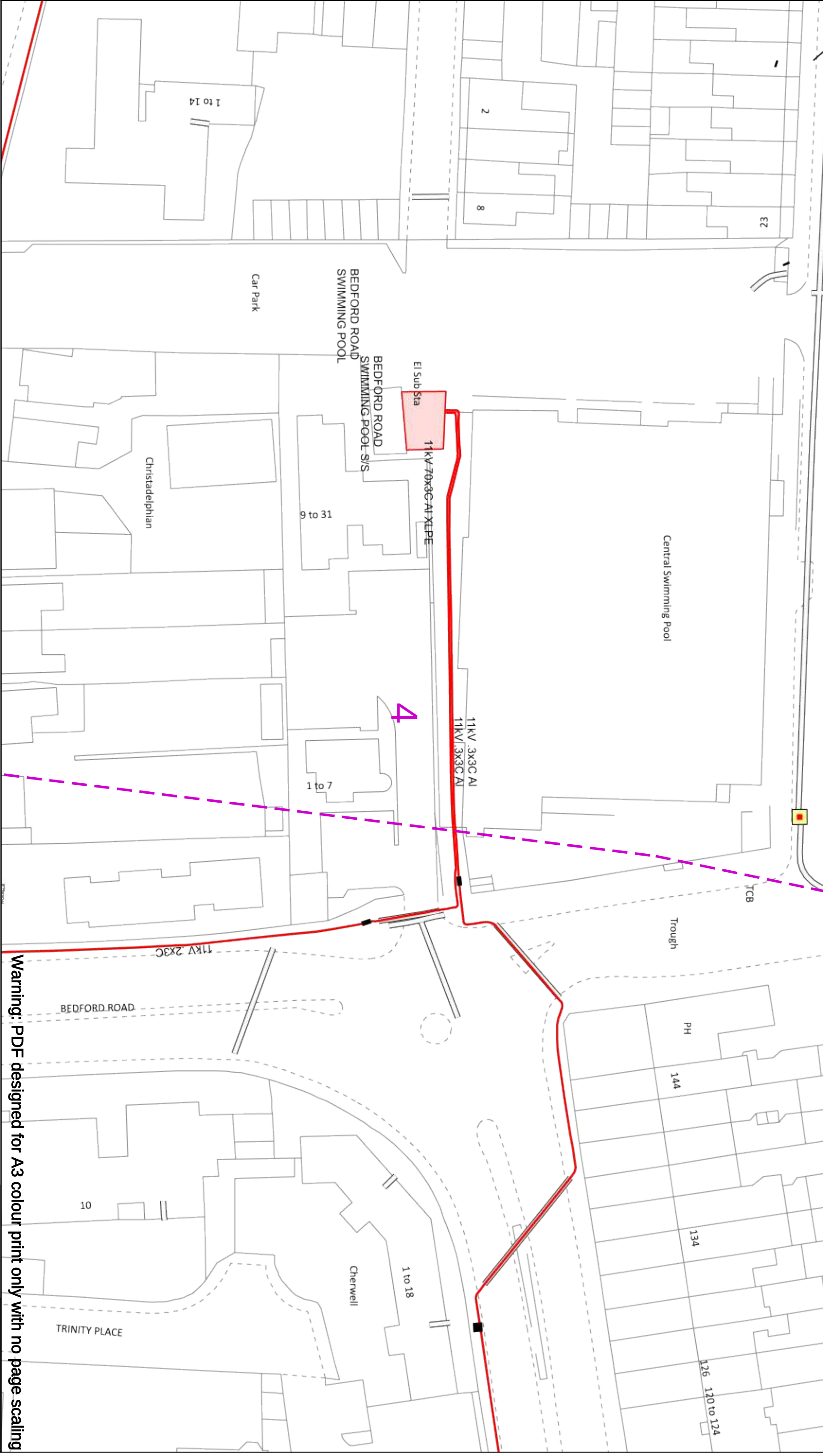
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Dig Sites Area: Line:

WARNING

There may have been subsequent alteration to the surface levels. Trial holes must be undertaken to determine position and depths of cables. HS (G) 47 Booklet from the Health and Safety Executive – Avoiding Danger from Buried Cables – should be consulted before commencing excavation work.

WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Voltages (V)			
LV (Low Voltage) and Services			
HV (High Voltage)			
EHV (Extra High Voltage)			
Transmission			
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN Laid			
Services			
Footpath/Unmade			
Road Crossing			
Agricultural			

Legend

Service Cable

- LV (Low Voltage)
- 2 - 33kV
- 66kV
- 132kV
- 275kV
- 400kV
- Fluo Cable

Distribution Structures (Blacked)

- Pole, Existing Location
- Pole Structure, Existing Location - Single
- Pole Structure, Existing Location - H
- Duct Route
- Cross Section Route



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If you're unsure & need to seek advice before commencing excavations please contact:
General Enquiries: 0800 048 3316

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