

technical guidance for developers

industrial and commercial electricity



total **utility**
connections

If you are experiencing a power cut please call the relevant DNO/iDNO emergency number

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This guide is here to help you prepare for the installation of the electricity network on your development and how to do so in a correct and safe manner.

Please remember we are a heavily regulated industry, and the instructions in this document need to be followed in order for the installation of your network to go smoothly and safely.

Please follow the approved electricity design we provide for you. This will be specific to your development and all design changes will require approval.

If you have any queries at all please contact our team on 029 2132 0350 or construction@tucltd.co.uk

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work and material call off

Work Call Off

To call off work with our team:

029 2132 0350

or

calloffs@tuctd.co.uk

Site Preparation

Please ensure that you refer to the information contained in this document in conjunction with the approved design when preparing site for our installation works.

Please note that buildings requiring service connections will need to be watertight and lockable with scaffold removed from the working area prior to work commencing.

We will provide you with an approved design which will contain full details of the installation to your property/development. Please ensure that any civils work that is your responsibility is carried out in accordance with the route shown on the design, as any amendments may require a re-design which could incur additional charges.

Cables

We will arrange for cables to be delivered ready for our operatives to install, or they will be brought along on the day. Please ensure that you can provide a suitable storage area for all materials as you could be liable for any damage to or loss of our equipment whilst it is stored on site.

Once all the cable has been removed from the drum, these will be removed from site by the manufacturer/supplier upon request. You can either follow the instructions that can be found on the side of each drum, or contact us to arrange.

Ducts

Where cables are to be ducted, the correct specification and location of the ducts is shown on the approved design, with the specification generally to ENATS-1224.

Please note that there may be different requirements for certain sections of the site e.g. roadway/footway/road crossings. All ducts that are not immediately required need to be left capped with a suitable draw cord in place.

Meters

Electricity meters are not included as part of our installation and are generally called off via your electricity supplier.

excavation for mains cables

Total Utility Connections is responsible for laying all mains cables in trenches and/or ducts pre-excavated and pre-installed by yourself (unless otherwise stated) to the following minimum depth of cover:

Recommended depth of cover for mains cables (depths shown are to finished ground level)		
	Low Voltage	High Voltage
Road and vehicular/ pedestrian areas	600mm	750mm
Footpath	450mm	600mm
Verges	450mm	600mm
Open fields and agricultural land	1000mm	1000mm

Your Responsibilities:

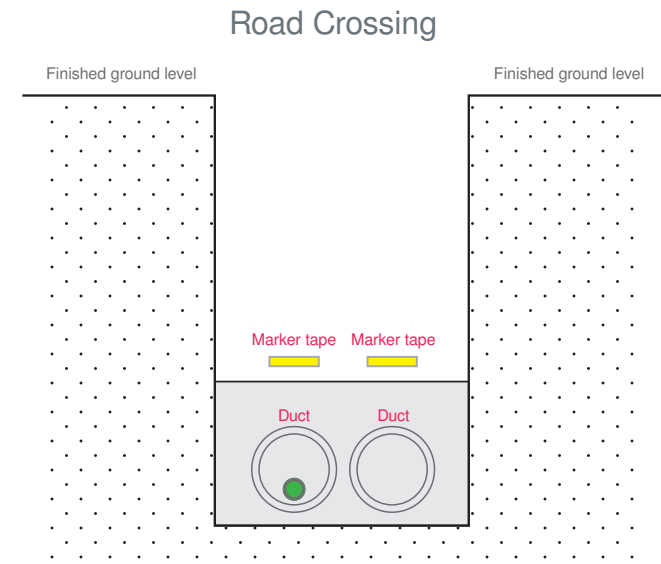
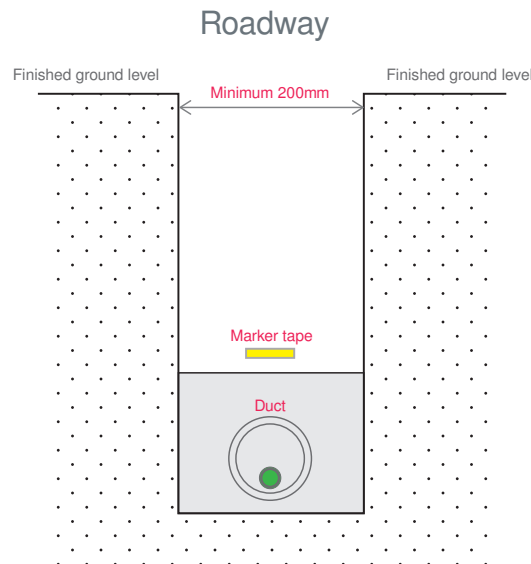
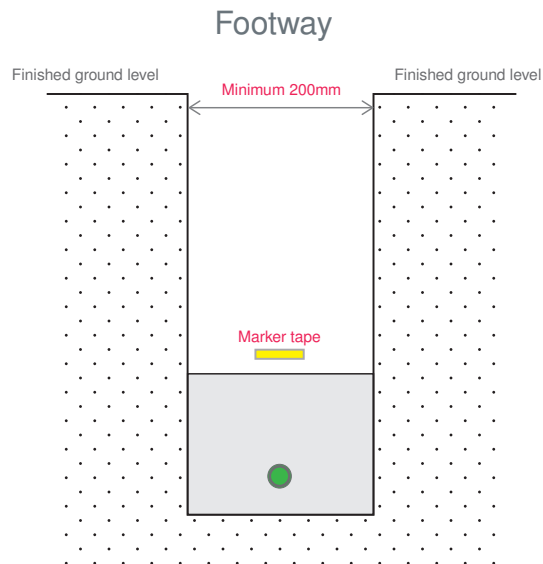
All cables to be installed with a suitable finefill surround - check approved design for details

Bottom of trenches must be level and free from sharp stones

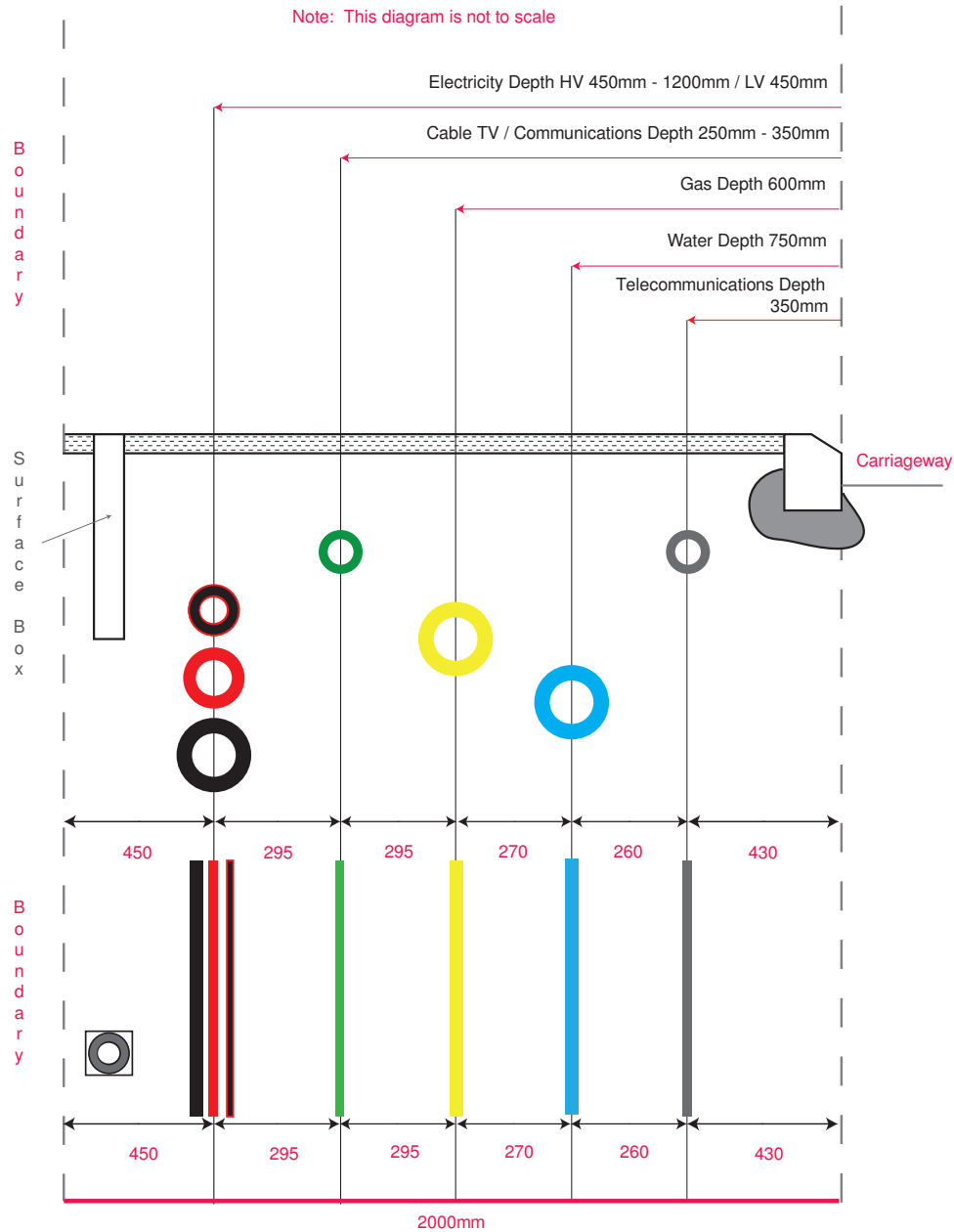
Please check separation distances as detailed on page 5

Electricity warning tape to be laid above main and ducts

Spare ducts to be installed for ALL road crossings



utility pipe and cable positions



This diagram illustrates the recommended positioning for new utility apparatus in a 2m footway.

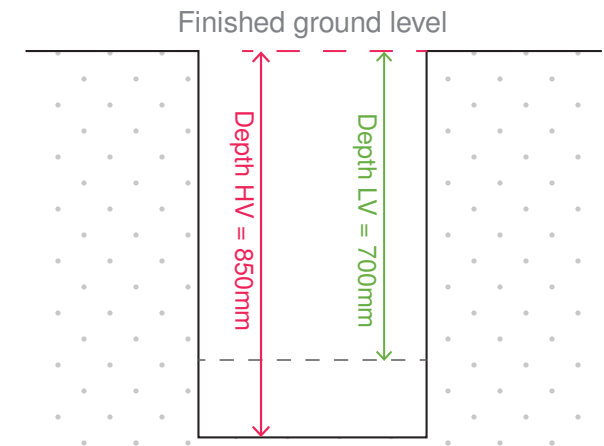
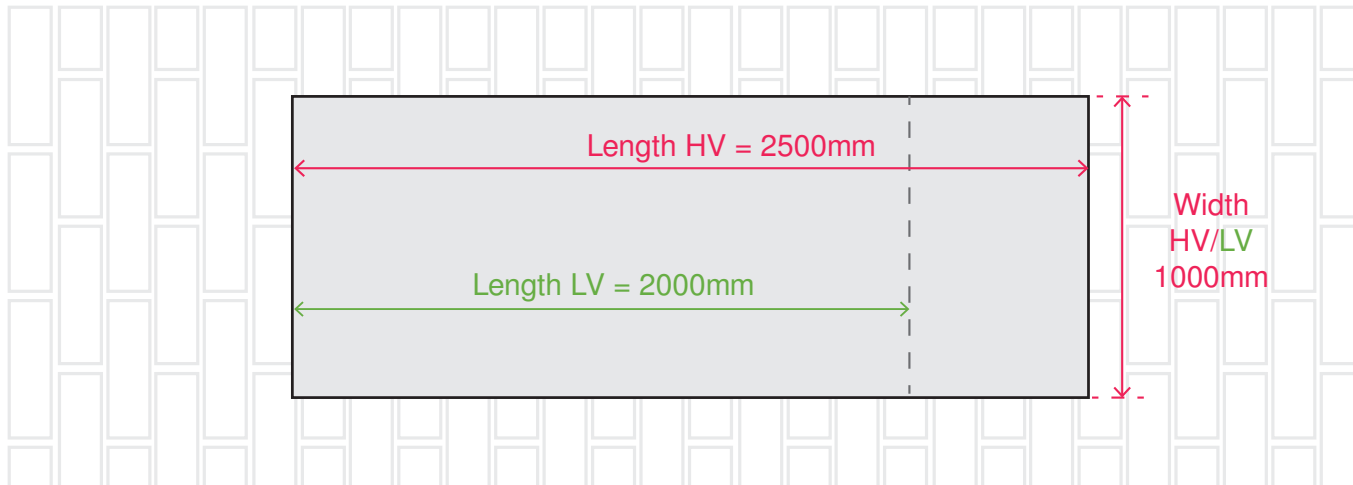
If you think there may be a problem with the positioning of our network on your development then please contact us and we will be happy to advise and help resolve any issues.

Please note that this information is for guidance only (as per Streetworks UK), and the adopting network owner may have specific requirements that will be shown on your electricity design, or other utility design.

joint bay dimensions

There may be a requirement for some of our mains cables to be jointed within your development as part of our installation. This will generally be where there are long lengths of cable, or multiple different cables installed.

Where it is your responsibility to carry out all civils activities, we would ask that you follow the guidelines below for jointing excavations to ensure that there is enough room for our operatives to carry out their activities safely.



Your Responsibilities:

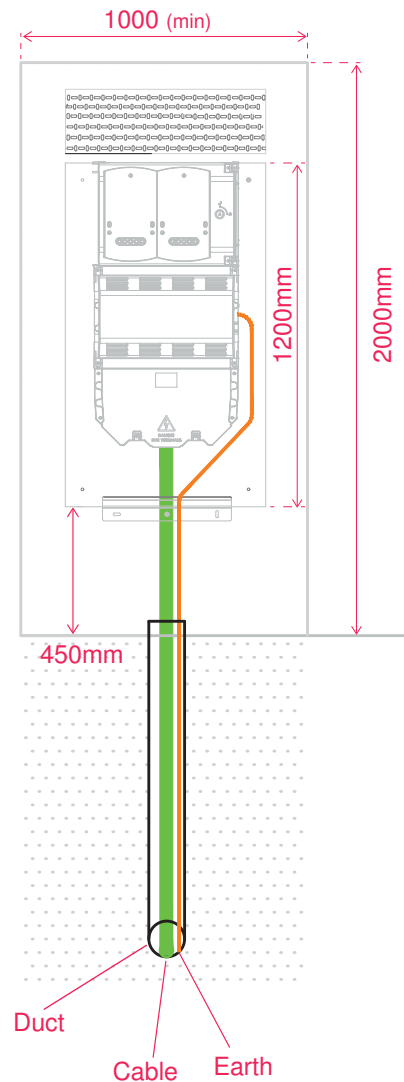
Ensure excavation depths are from finished ground level

The required width may increase dependent on the number of additional cables in the trench

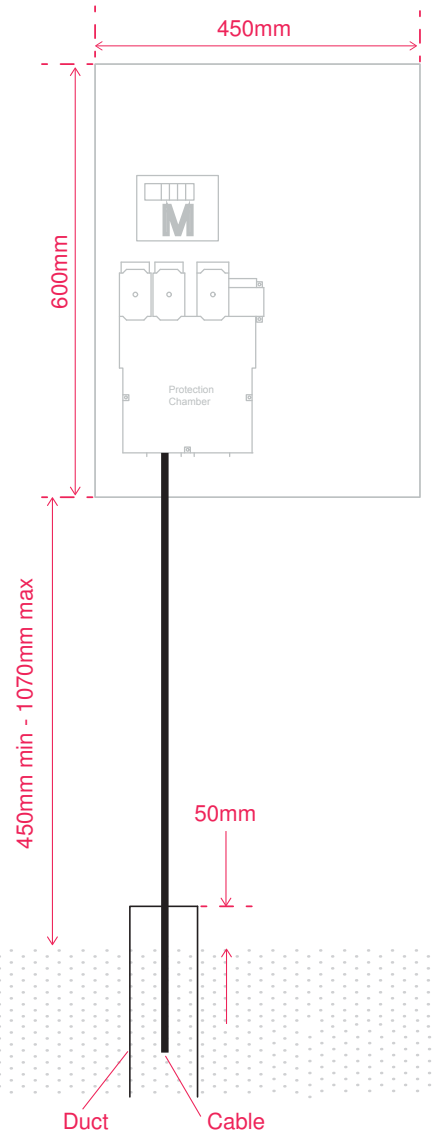
If multiple cables are within a jointing area, all cables must be exposed to enable safe cable identification

service termination dimensions

Typical 200-600A Heavy Duty Cut-Out



Typical 100A 3-ph Cut-Out



These diagrams show typical 100A and 200-600A service terminations.

The measurements shown only reflect the space required for our equipment which must be considered when selecting a suitable housing or location within a building.

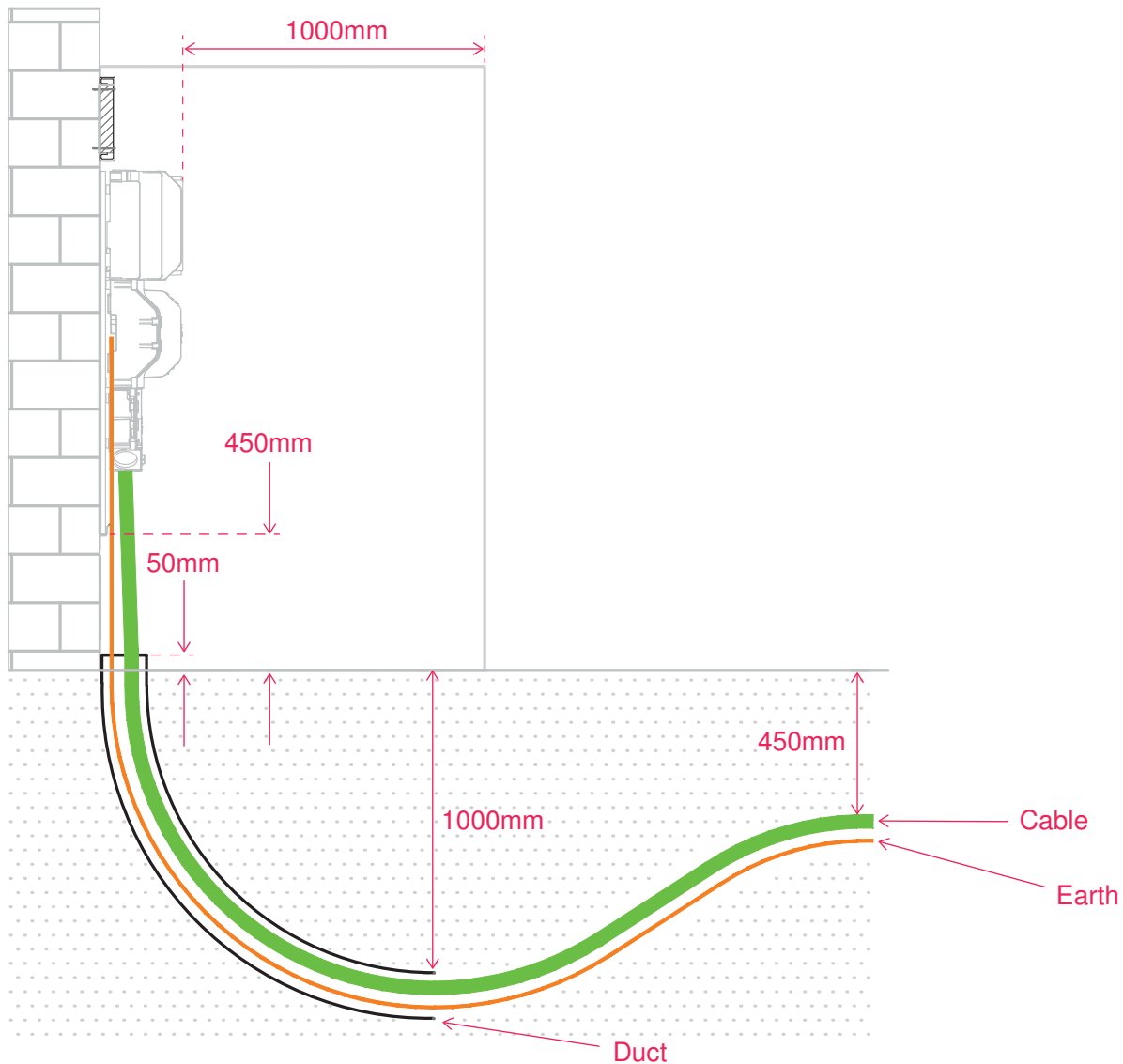
Your Responsibilities:

Ensure that ducts are sealed at both ends to prevent the ingress of gas and debris

Please check the approved design for any specific information relating to the installation requirements

You will need to arrange the installation of any electricity metering via your nominated supplier

cable bending radius



This diagram shows a typical three-phase service terminating internally. The electricity cables we install have a bending radius that will need to be taken into account when any ducts are being installed, prior to the cables being installed.

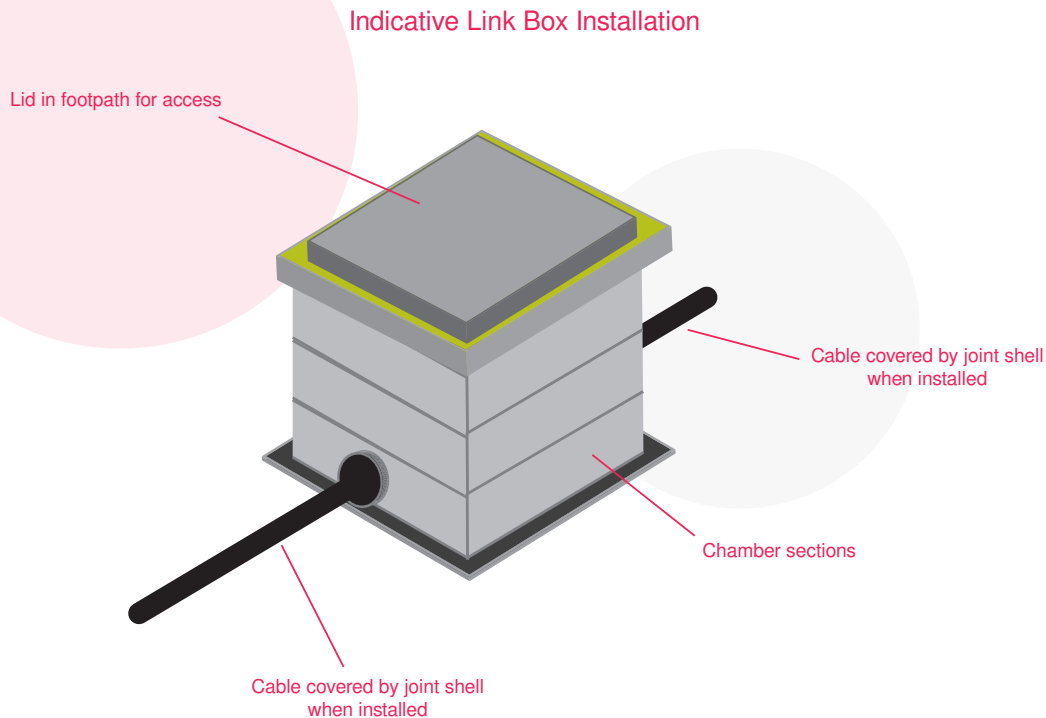
Although this is a typical internal termination, duct installation in relation to cable bending radii should be considered for all supplies.

Specific details relating to your development will be available on the approved design.

general advice

Link Boxes

A link box may be required near the site entrance if your development has a low voltage connection. The link box is contained in an underground chamber set with a cover that will be situated in the footpath and acts as a switching point between the connecting and adopting network owners.



A Link Box requires a minimum excavation size of L1500mm x W1000mm in a footpath

Legal Agreements

Each new development requires a legal agreement to be in place between the adopting network owner and land owner prior to energisation. We will request your Section 38 drawing at acceptance and will endeavour to help you to expedite the legal process to prevent any energisation delays.

Substations

If your development requires a high voltage connection then a substation will generally be required. The proximity of substations to buildings can be up to 7m depending on housing/kiosk type, and you will need to ensure that vehicular access is available. We will provide you with full details on your approved design should a substation be required for your development.

If you need any further help or information on the content of this document, please contact our team on 029 2132 0350 or at construction@tucltd.co.uk

If you are experiencing a power cut please call the emergency number detailed on the termination equipment

