

Working Safely **Near Cadent assets at home**



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Introduction

When you are planning to carry out works at home such as building an extension, garden building, or even if you're landscaping or having a new driveway, you should be aware of gas pipes in the area where you want to work.

Working near gas pipes can be dangerous. Even slight damage can cause a gas leak, which may lead to fire or an explosion.

This document provides homeowners, occupiers and builders with information and guidance to ensure safe working in the vicinity of gas assets at home.

To work safely, submit an enquiry through [LineSearchBeforeUDig \(LSBUD\)](#) to get a map of our gas pipes.

After submitting a 'planned works' enquiry through LSBUD, you will either receive a response advising you not to start any work until we confirm it is safe to do so, or you will be permitted to 'proceed with caution'.

Before starting any works, you must download, read and follow our [Specification for Safe Working in the Vicinity of Cadent Assets](#), as well as the information contained within this document.

If you feel that you cannot work safely in line with this document or have further questions, you can contact us using the contact details provided for your network area on [page 14](#).



Building work

If you are carrying out building work on your land, such as extensions, standalone buildings, and sheds, **you must never build over a gas pipe, even if you or a building professional think it is safe to do so.**

Building over or compromising a gas pipe can pose a serious risk. Digging large excavations near gas assets can undermine them or cause ground movement, risking the pipeline's integrity.

- Gas pipework can leak; this gas could enter the fabric of the building - including cavities and voids - which is very dangerous and could lead to ignition or explosion.
- Any leak in confined spaces or voids may be undetected by smell.

- Any building works over your gas pipework not only puts you at risk but also your neighbouring properties.

You must contact us to let us know of your activities so that we can confirm where any buildings can be placed safely, and in such a way as not to interfere with our ability to maintain our assets.

More information on minimum building proximity distances can be found in our [Specification for Safe Working in the Vicinity of Cadent Assets](#).



External cladding

We understand that sometimes you may need to install external cladding to your property. There aren't generally any issues with this but if you have an externally mounted gas meter, or your gas service pipe enters through an external wall, you must leave enough room around the installation so that we can maintain them if necessary.

You must maintain the following:

- A minimum of 50mm around any external meter box (as shown in Figure 1).
- A minimum of 250mm around any external gas pipework (as shown in Figure 2).

When installing cladding, it must be sealed to prevent gas from getting into any voids.

In some cases, instead of leaving exposed gas pipes, you may prefer to enclose them. This is acceptable, however please check with us to ensure the cover has adequate ventilation, is removable and appropriately labelled.

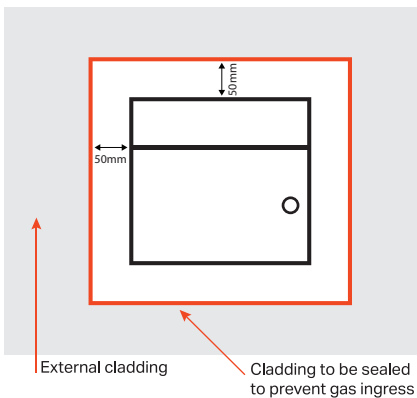


Figure 1: Meter box

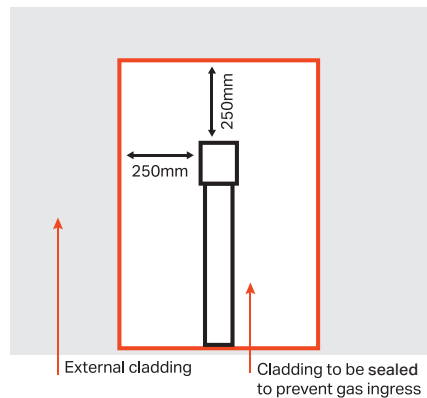


Figure 2: External gas pipework

Tree planting and landscaping

Before any tree planting in the vicinity of a Cadent asset or easement, you must get confirmation from us that it is safe to do so. We will specify the safe planting area and tree types.

We retain the right to remove any trees that we believe may endanger a pipe in the future. For more details and to tell us about your plans, visit our [Working Safely](#) webpage.

The following are guidance notes for tree planting in the vicinity of a Cadent asset:

- The only hardwood plants that can be planted directly across a pipe are shallow-rooting hedge plants (e.g. Quickthorn, Blackthorn). These can only be planted where necessary for screening purposes or to indicate a field boundary.
- Raspberries, Gooseberries and Blackcurrants must be planted at least 2 metres away from a pipe.
- Dwarf Apple Stocks must be planted at least 3 metres away from a pipe.

- Christmas trees (Picea Abies) must be planted at least 3 metres away from the pipe, with permission for clear-felling every seven years.
- Trees such as Ash, Beech, Birch, Conifers, Elm, Maple, Lime, Horse Chestnut, Oak, Sycamore, Apple, and Pear must be planted at least 6 metres away from a pipe.
- Dense mass planting must be carried out at least 10 metres away from a pipe.
- Poplar and Willow trees must be planted at least 10 metres away from a pipe.

If you are planning to change the ground level in the area around one of our pipes, you must let us know so that we can assess the risk to the pipe.

Distance is measured from the edge of the pipeline

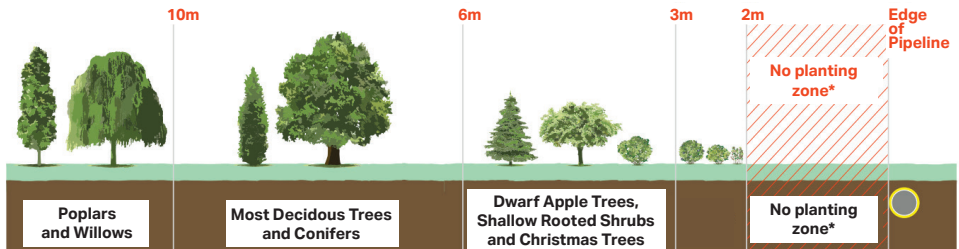


Figure 3: Tree planting restrictions near gas pipes

*Except for hedges where approved

Identifying Cadent assets

There are some pipes you can identify on your land at home.

Gas distribution mains are pipelines which we use to transport gas in bulk to numerous customers.

Gas service pipes are the pipes between distribution mains and the outlet of the emergency control valve on an individual meter installation.

We have gas pipes operating at four pressure tiers; low, medium, intermediate and high. Most domestic properties connected to the gas network have a low-pressure gas service made of either plastic or steel. These generally run in straight lines from your property to the gas main, which is usually low pressure (the red lines on *Figure 4*).

Our low and medium-pressure distribution mains are generally made from iron, plastic or steel. Intermediate pipelines are made from either plastic or steel, and high-pressure pipelines are made from steel.

We partner with the enquiry service [LineSearchBeforeUDig \(LSBUD\)](#) to respond to your planned works enquiry with a map.

Our maps show gas pipes that are 2" or 63mm and bigger, but **plans do not normally show the position of gas service connections or gas services**. However, their existence should be anticipated in areas where domestic properties exist. Therefore, it is highly likely that your gas service will not be shown on our mapping system.

It's sometimes the case that not all our gas pipes are shown on these maps, so you must be extra careful when working on your land.

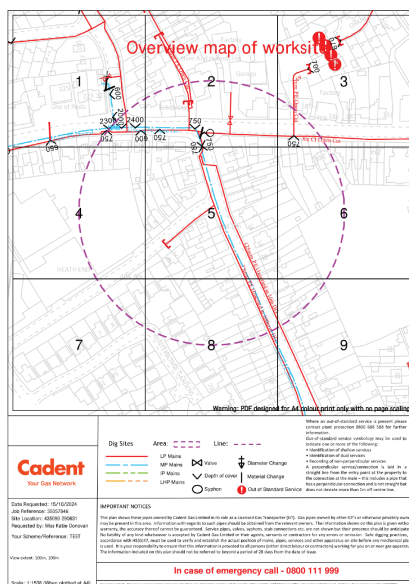


Figure 4. An example of a Cadent map displaying an overview of a worksite

In some instances, there may be unidentified pipes in your land. If you find a pipe in your land that you are unaware of and you don't know what it is for, stop work immediately.

Where there is any doubt about the identity of an exposed pipe, it should be treated as a gas pipe until proven otherwise. You can [request a live/dead check](#) on our website or contact your local Plant Protection team on [page 14](#).

Distribution mains

Distribution mains are normally laid in public highways and footways, but occasionally, they are laid in private land. This was a common practice where local authority owned properties were built and connected to the gas network at the same time.

You must always check our maps to see if there is a gas main on your land, even if you think there isn't, or you are unaware of one.

There may also be an easement in place on your land which prohibits certain activities within the easement strip without our consent. The sizes and restrictions of these easements vary, so you must also contact us before you start work to gain consent if you believe there is one in place.

Service pipes

Most domestic properties connected to the gas network have a low-pressure gas service made of either plastic or steel and they are generally smaller than 2" or 63mm in diameter.

For homes built before the 1970s (and on some other occasions), it was common for the meter to be installed inside the home, whilst new standards prefer the meter to be placed outside. There are also some circumstances where the gas service pipe enters a property and the meter is located inside. A grey pipe running vertically and then through an external wall often identifies this. Since the 1970s, these service pipes have been made of plastic for both new buildings and where the gas service has been replaced, sometimes positioning the gas meter externally.

Although service pipes are not shown on plans, these generally run in straight lines from your property to the gas main, which is usually low pressure. It may be possible to estimate the probable line of the service connection pipe from the gas meter position, or from the point of entry into the premises.

Figure 5 shows the recommended depths of cover for service pipes and the route from a distribution main to a residential property.

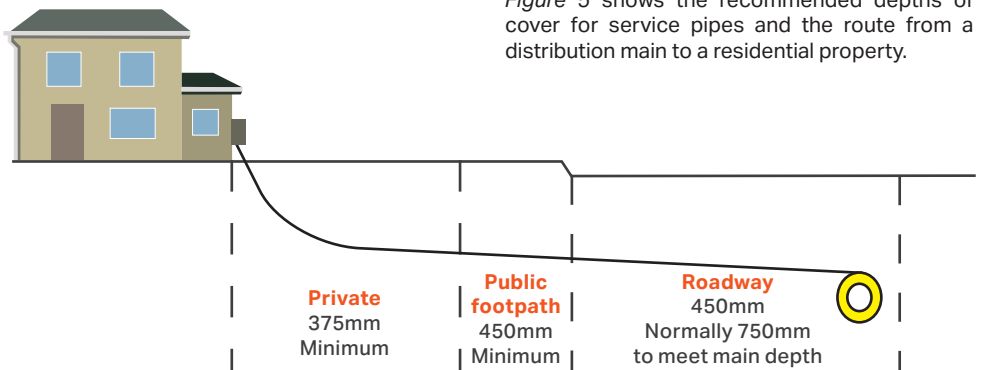


Figure 5. Recommended depths of cover for service pipes and the route from a distribution main to a residential property*

*Image not to scale

Out-of-standard services

There are some circumstances which cause us to lay services "out of standard" and unlike normal services, their presence may be shown on our maps using this symbol:



Out-of-standard services are defined as one or more of the following:

Shallow:

- Where a service has been installed shallower than the recommended minimum depth.

Dual service:

- Where one common service splits to supply two separate properties.

Non-perpendicular service/connection:

- **Pipe B** – Where a connection to the main that is more than 1m (approx.) off centre - in either direction when evaluated from the main.
- **Pipe C** – Where connection to the main that is perpendicular to the entry point, but the service is not straight and deviates more than 1m off the centre line e.g to avoid obstruction.
- **Pipe D** – Where both of the above situations exist.

Where an out-of-standard service is present, please contact your local Plant Protection team for further information. Find the contact details on [page 14](#)

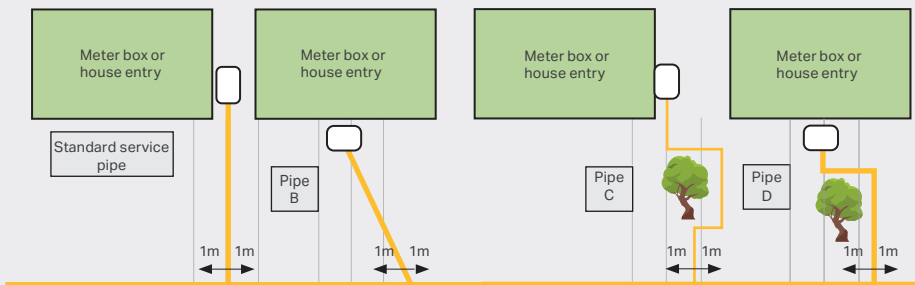


Figure 6. Standard and out-of-standard service pipes

Service governors

While most gas services to domestic properties are connected directly to a low-pressure main, there are some areas where our low-pressure network is limited. If your property is in one of these areas, you may find that the closest main to your property operates at medium pressure, denoted by the blue lines on a Cadent map, as shown on *Figure 4*.

In this instance, you may have a service governor on your property to reduce the pressure for you to use gas at your premises. Please be aware that a service governor can be in an above ground housing or within below ground pit.

You must be careful not to damage these governors in any way, and you must let us know if you are doing any work near one. As governors may need to vent gas into the atmosphere as part of their normal operation, hazardous zones are in place to stipulate the proximity around them in which you can't build.

As with normal services, the service pipe to your property should run in a straight line from the service governor to your meter position.

Extra care must be taken not to damage, block or bury the governor or vents, as these are critical to its safe operation.

As service governors are commonly installed near the boundary of a property - often in the vicinity of vehicular access points - there is a heightened risk of them being struck by vehicles.

If you believe there is a risk that a service governor on your property is at risk of damage from vehicles, contact your local Plant Protection team and we will assess the risk. See [page 14](#) for contact details.



Working safely near Cadent assets at home

Remember, when planning to undertake works at home you must submit a planned works enquiry through [LineSearchBeforeUDig \(LSBUD\)](#) to allow us to assess your works and you must use our [Specification for Safe Working in the Vicinity of Cadent Assets](#) to work near our assets safely.

In addition:

- Safe digging practices must be used to verify and establish actual positions of mains, pipes, services, and other apparatus on-site, especially before any mechanical plant is used.
- Mechanical excavation cannot be used with 0.5m of a low or medium-pressure distribution assets and 3m of an intermediate or high- pressure pipeline.
 - We will provide site specific advice and supervision when carrying out works in the vicinity of an intermediate or high-pressure pipeline.
- If you want to dig on land where there may be a gas service, there are some things that you can do to determine where it may be:
 - Locate your gas meter – if you have a gas meter, a service pipe will connect this to the gas main.
 - Use our maps – if you have a gas meter, use Cadent maps to see where the nearest main is to your property. The gas service usually runs straight from your gas meter to the main.
 - Look for small gas boxes near the gas main – we sometimes use service isolation valves on our gas services, so there may be a small box near the gas main that says 'gas' on it. These boxes will usually indicate the position of a gas service and can be used in conjunction with the position of your gas meter to determine the approximate route of the gas service.
 - Look for any evidence of previous excavations, such as disturbances in driveways or lawns that could show where a pipe was laid.
 - Use utility detection equipment – there are many options for detecting below-ground apparatus, such as radio detection and ground penetrating radar. Metallic pipes are generally easier to locate using this type of equipment, but many of our gas mains and services are plastic.
 - Locate the gas service by hand digging – if you think you know where your gas service may be, you can try to locate it by carefully digging using non-powered hand tools.



Remember, your gas service could be damaged if you do not proceed cautiously, so ensure this work is carried out by someone competent to do so.

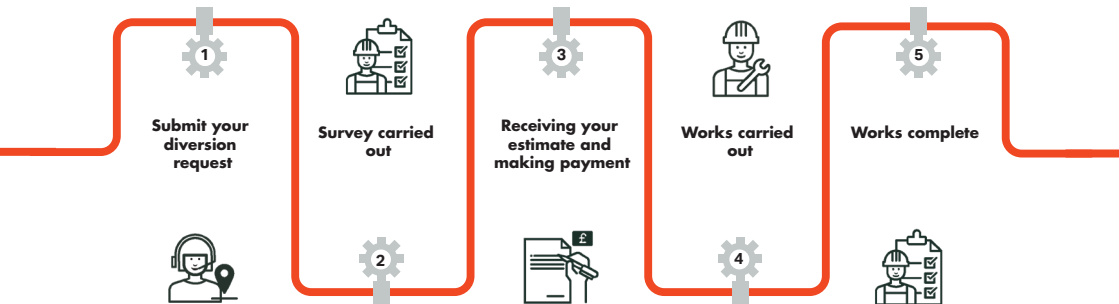
Diversions and service alterations

Depending on the work you want to do, you may need to apply to us for a mains diversion or a service alteration.

Remember, you must not build over a gas main or service pipe.

If you think your works may affect one of our assets, you must contact us to let us know. You can [Request a Gas Diversion](#) through the form on our website.

If you need to move your existing service to a new position, we may be able to do this for you. To apply for a service alteration, you can do so on the [Household Customers](#) page of our website.



What to do if you find or cause damage

You must ensure that you work safely around our assets and follow guidance carefully.

If you hit a gas asset, whether the damage is visible or not, you must do the following:

- Shut down all plant machinery and extinguish any potential sources of ignition.
- Call the free 24-hour National Gas Emergency Service number immediately on **0800 111 999***.
- Ensure no one approaches the asset.
- Do not try to stop any leaking gas.
- Provide assistance as requested by us or the emergency services to safeguard persons and property.



Contact details

East of England Operations Plant Protection

Address: Cadent Gas Limited,
Vicarage Farm Road, Peterborough, PE1 5TP
Email: box.eaplantprotectionops@cadentgas.com

East Midlands Operations Plant Protection

Address: Cadent Gas Limited,
Effingham Street, Sheffield, S4 7YP
Email: emplantprotectionops@cadentgas.com

North London Operations Plant Protection

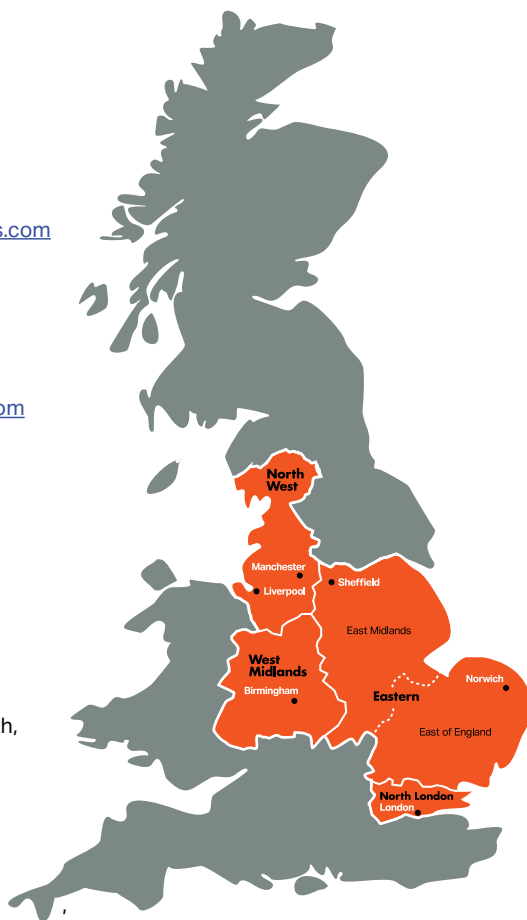
Address: Cadent Gas Limited,
Uxbridge Road, Slough, SL2 5NA
Email: nplantprotection@cadentgas.com

North West Operations Plant Protection

Address: Cadent Gas Limited,
Plant Protection (Block C), Mersey Road North,
Failsworth, Greater Manchester, M35 9FF
Email: plantprotection.nw@cadentgas.com

West Midlands Operations Plant Protection

Address: Cadent Gas Limited,
Windsor Street, Birmingham, B7 4DN
Email: plantprotection.wm@cadentgas.com



Disclaimer

This document is provided for use by third parties for safe working in the vicinity of Cadent assets. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

Users should ensure that they are in possession of the latest edition of this document by referring to the **Working Safely** page on the Cadent website.

Cadent

Your Gas Network

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