

Developers' guide  
**Gas connections**

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# Introduction and process

**Last Mile aim to provide the highest standard of customer service throughout the entire connection process providing the customer with a single point of contact at every stage of the project.**

We will be installing the gas distribution infrastructure to ensure the new supplies you have requested are installed/commissioned to the required metering points. Once this infrastructure has been commissioned it will then become fully owned and maintained by the adopting Network Operator.

An approved design will be provided for you which will have been validated by the adopting Network Operator. It is essential that the elements of the installation that you are responsible for are installed to the exact specification required on the design, failure to adhere to this could result in the commissioning of the new infrastructure being delayed and/or incurring additional costs, something we are very keen to avoid.

Finally, if there is any part of this project that you are unsure, unhappy or really pleased about, please don't hesitate to contact us. In addition, we will also provide you with details of our Regional Construction Manager should you wish to escalate any queries.

## Note:

Smell Gas? To report a gas or carbon monoxide emergency, or if a pipeline is struck (even if no gas leak has occurred) call the National Gas Emergency Service 24 hours a day on 0800 111 999.

# Responsibilities

The table clearly defines who is responsible for the various tasks required for the installation of the gas services on your site, these may vary slightly if specifically requested at quotation stage. Please check your proposal to confirm or call your Project Manager to discuss.

Tasks	Customer	Last Mile
Request call off service connections from Last Mile	✓	
Provision of Meter Point Reference Number (MPRN's)		✓
Excavation and reinstatement of on-site pipe trenches	✓	
Supply and installation of onsite ducting	✓	
Supply of meter boxes & gas warning marker tape		✓
Installation of meter boxes & gas warning marker tape	✓	
Excavation of onsite joint bays	✓	
Supply and installation of gas pipe		✓
Safe and secure storage area available prior to works	✓	
Security for plant and contractor's equipment delivered to site	✓	

Final ground lines and levels are determinable. A maximum of 300mm from the finished floor level can be visible on the service black bend.

## Materials:

- We will arrange for all gas service and mains materials to be delivered to site ready for our teams to install.
- Please take care of all materials and ensure they are stored safely and securely for our teams to use.
- Please ensure that mains pipe is protected as, if any pipes have cuts or scratches to a depth greater than 10% of their wall thickness, they must be discarded.

# Requesting works

Once your project moves into the construction phase a Project Manager will be assigned and will make contact with your site team. The Project Manager will be your point of contact for all communication, and they will hold a pre-start meeting with your site team to run through our processes and requirements and more specific project deliverables.

## **Minimum lead times for calling off work are:**

- Mains pipe installation – 20 working days
- Service connections – 15 working days
- Work in public highway – 40 working days

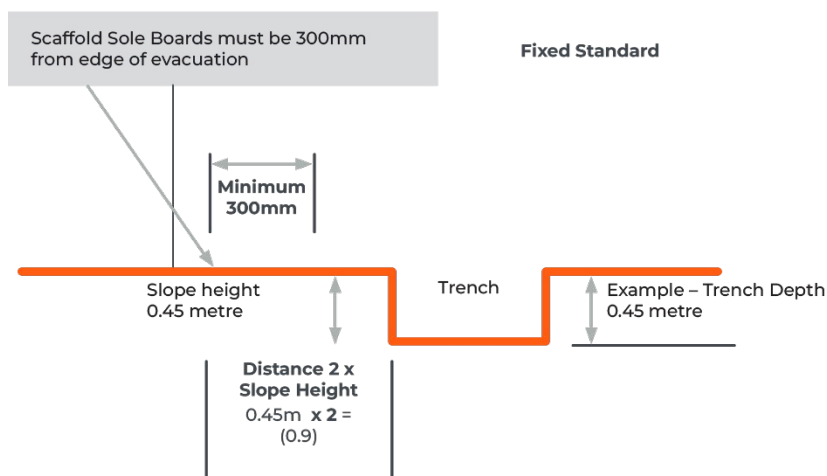
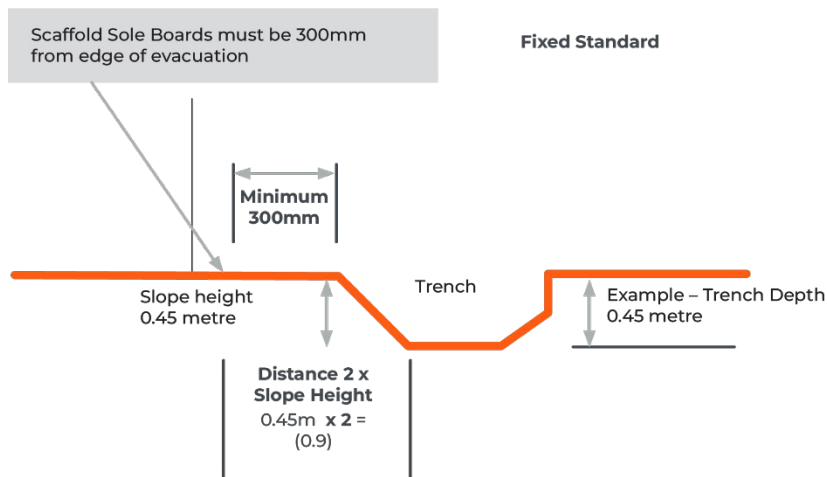
Please be aware that the below requirements need to have been met prior to our site attendance to ensure the works can be completed without aborted visits.

- Meter boxes/positions are installed and complete. No damage or doors/lids missing. Cavity spigots are installed correctly.
- Final ground lines and levels are determinable.
- Excavations are suitable and safe
- Scaffolding has been removed from our work area. Any scaffolding near trenches complies with the information on page 5.
- Ducting has been installed to the correct specification and position where required.

# Working near scaffold

Last Mile must ensure a safe working environment when working near scaffolding for its installation teams; to allow this we must implement the following in line with National Access & Scaffolding Confederation (NASC) TG20 Operational Guide Section 5:

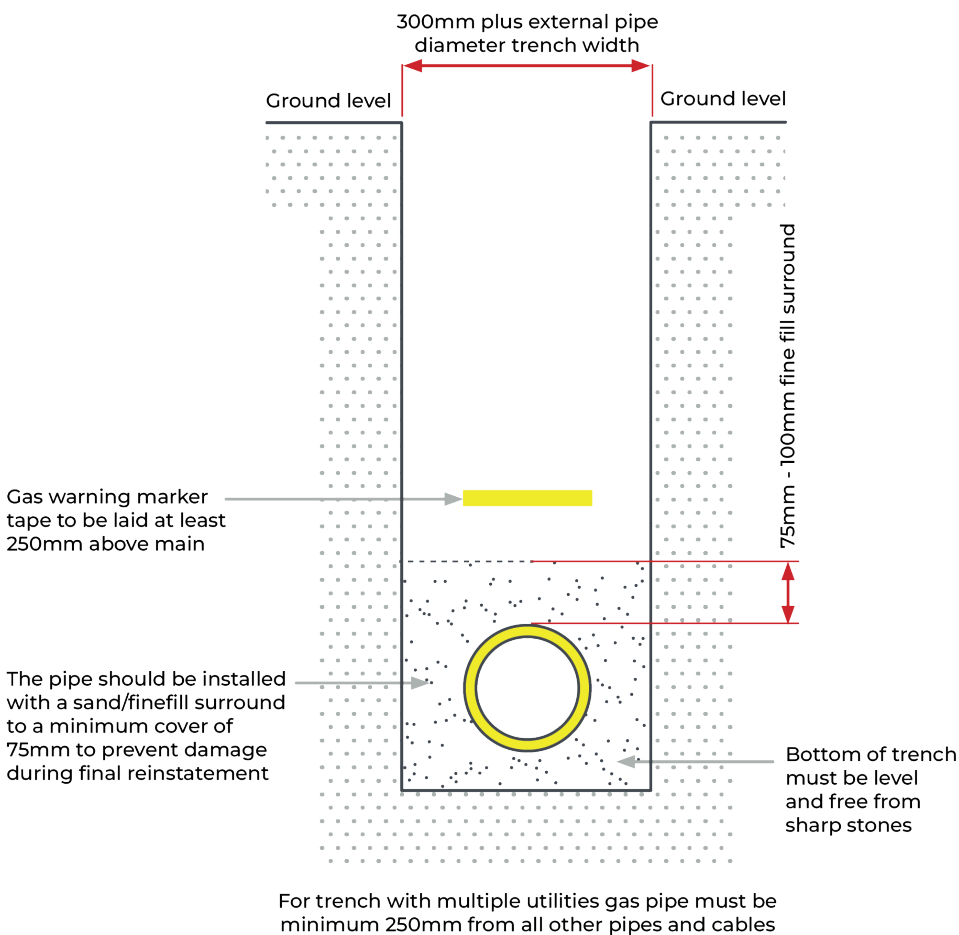
- Scaffold must be designed and erected by competent persons.
- It must have an in-date scaffold tag confirming its safe condition.
- Allow safe access and egress to the point of work.
- There must be no one working on the scaffold at the time when our installation team are completing their works.
- Scaffold sole boards must be a minimum of 300mm from the edge of the excavation.
- The bottom of the excavation must be twice the height of the trench away from the sole board horizontally.
- Work may only take place under scaffold at the discretion of the team on-site after consultation with their supervisor or manager.



# Excavation for mains pipes

Last Mile is responsible for laying all mains in trenches (unless otherwise stated) to the following minimum depths, using the diagram below:

Minimum depth of cover for mains pipes – low and medium pressure	
Road and vehicular/pedestrian access	750mm
Footpath	600mm
Verges	750mm
Open fields and agricultural land	1100mm




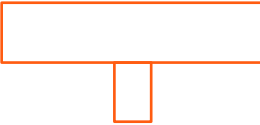




## Note:

The trench must be backfilled prior to any pressure testing of the gas mains.

# Minimum excavation requirements

Minimum excavation requirements to support connections. Excavation base to be 150mm below pipe

Connection type	Applicable mains diameters	Excavation size	Additional bell hole in middle in direction of offtake	Excavation shape
<b>End on connection</b> (Note: the excavation dimension is for the live main to be exposed)	≤180mm mains diameter	2.1m x 0.7m	n/a	
	250/315mm diameter	3.3m x 0.9m	n/a	
<b>Insert Tee</b>	≤180mm mains diameter	7.3m x 0.7m	1m x 0.7m	
	250/315mm diameter	10.6m x 0.9m	1m x 0.9m	
<b>Branched offtake</b>	≤180mm mains diameter	1.5m x 0.7m	2m x 0.7m	
	250/315mm diameter	1.5m x 0.9m	2m x 0.9m	

# Utility pipe and cable positions

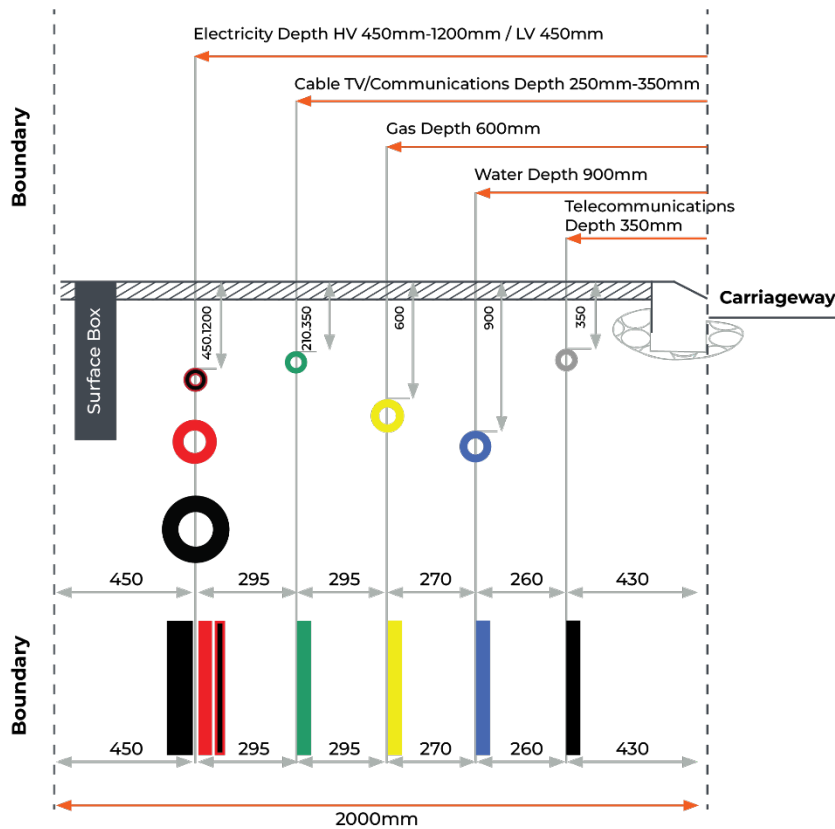
The diagram below illustrates the recommended positioning for new utility apparatus in a 2m footway.

Depth of cover required in a carriageway or verge is 750mm with proximities to other utilities remaining as per the diagram.

The gas network design will be discussed at the prestart meeting. If you have any subsequent problems or queries, please contact your Project Manager who will be happy to advise and help resolve any issues.

**Please also note that a minimum of 250mm clearance must be achieved from the gas main to all other utilities.**

**PLEASE NOTE WATER DEPTH IN GAS STIPULATES 750. SHALL WE AMEND THIS ONE (FROM WATER) OR IS IT CORRECT?**



Note: This drawing is not to scale

# Service positions and routes

All services must be laid individually and perpendicular to the building taking the shortest route practicable to the main, unless otherwise indicated on the approved design.

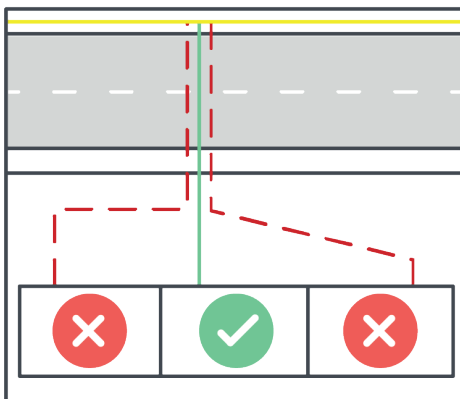
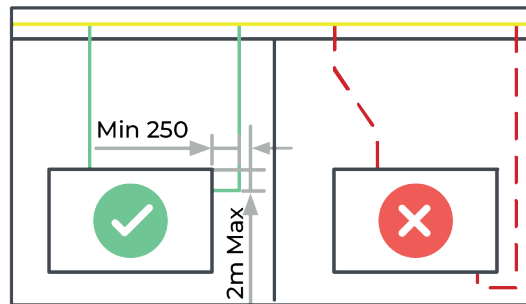
## Positions

The position of the meter must be on the wall of the property facing the parent main, or, where it is required, on the side of the property no more than 2m down the gable. Meters cannot be installed to the rear of the property.

**If you feel you cannot achieve the requirements, please contact your Project Manager.**

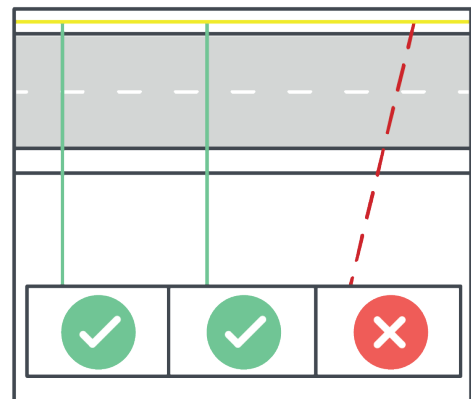
## Routes

The service pipe must not be installed in any land other than that of the property it is supplying or public/shared driveway. Where a service is required to cross the road to a main on the opposite footpath, it must be laid in an individual road crossing (it is acceptable to install ducts for these road crossings as required). We will try to minimise this as much as possible during the design stage.



Examples of service routes where road crossings required

Note: Drawings are NOT to scale

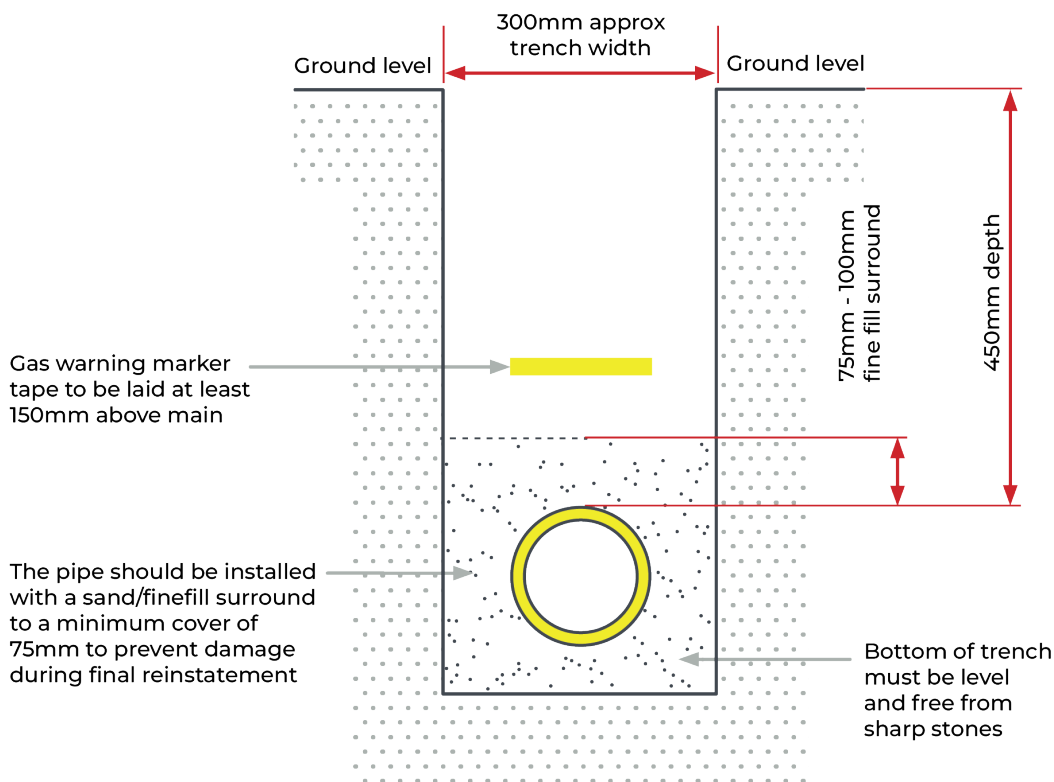


# Service pipe trenches

## Your responsibilities:

- Ensure a minimum of 75mm of fine fill material around the service pipe or ducting.
- Place marker tape above fine fill.
- Provide and install yellow perforated ducts (to BS4962) for road crossings or where required inside property boundary.
- Excavate at meter positions (550mm) and around gas main.
- Install meter boxes and doors/lids and cavity spigots where required. Services will not be connected to damaged boxes or missing doors. No additional holes to be made.

## Minimum depth of cover for service pipes: 450mm



For trench with multiple utilities gas pipe must be minimum 250mm from all other pipes and cables

Note: No additional holes can be made in the gas meter boxes

# Meter box installation

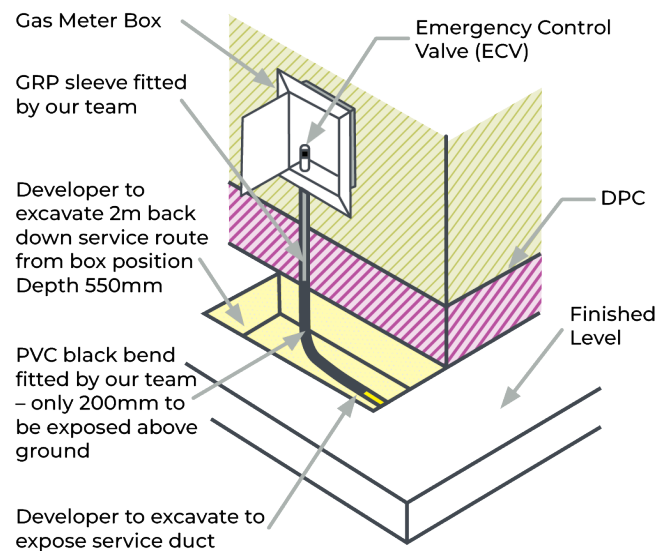
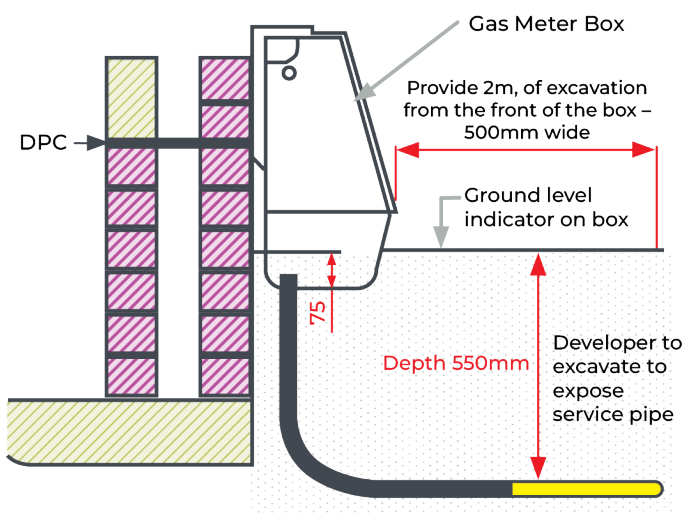
## Unibox

- Fitted at ground level submerged into the ground by 75mm or fixed onto the wall ensuring the ground level is as per indicator on the box.
- Should preferably be a minimum 150mm away from any air bricks or other openings.
- Ensure box is supported following installation.
- Fit meter box lid.
- Route outlet pipe through right hand side of box.
- Make continuity bond to outlet.
- Provide 2m of excavation from the front of the box, 500mm wide.

## Flush Fit or bolt on

- Should preferably be a minimum 150mm away from any openings, as above.
- Fix meter box to wall in accordance with manufacturer's instructions.
- Fit meter box door.
- Securely fit spigot outlet to prevent passage of gas into property.
- The meter installer will label the meter accordingly.
- Standpipes must be a minimum of 150mm away from and must not pass over any openings as described above.

Meter boxes and standpipes should be a minimum distance of 150mm from any openings such as air bricks, windows, doors, weepholes and flues where practicable.



# General advice

## Sealing of outlets

The meter installer will fit the meter and label accordingly. It is your responsibility to ensure that the meter box outlet spigot or any through-wall sleeve carrying the meter outlet pipework is correctly sealed to prevent the passage of gas into the property.

Failure to do this is a breach of the Gas Safety (Installation and Use) Regulations.

## Handling of pipe

Mains pipe may be delivered to site in coils or straight lengths. Individual smaller coils are generally capable of being handled manually. However, larger coils will require mechanical lifting using soft straps.

The handling of straight pipe lengths requires some expertise, especially once any pipe packs have been unbound.

Last Mile will move individual mains pipe lengths from the storage point to the construction location. Site assistance will be required.

## Electrical cross bonding

An electrical cross bonding wire (where required) should be connected to the gas meter outlet in accordance with Institution of Electrical Engineers (IEE). When the bonding wire enters a built-in box from the rear it must pass through the outlet installation pipe spigot and be contained within the seal.

The box must not be broken to accommodate the bonding wire.

## Ducts

Yellow perforated rigid plastic ducting (complying with BS4962) can be used for perpendicular road crossings only and will be discussed at your pre-start meeting.

It is your responsibility to supply ducts and install to the correct specification (ensuring minimum depth is achieved) otherwise we may not be able to lay pipe through incorrectly laid ducts.

Gas marker tape must be laid at least 250mm above mains ducts & 150mm above service ducts.

If you need any further help or information, please contact your Project Manager or our team on 03300 587400.

Gas Pipe External Diameter	Duct Internal Diameter
32mm	100mm
63/90mm	150mm
125/180mm	225mm
250mm	350mm

### Useful reference documents (Institution of Gas Engineers and Managers)

IGEM/TD/3 Edition 5 +A: 2015	Steel and polyethylene (PE) pipelines for gas distribution
IGE/TD/4 Edition 4 +A: 2013	Polyethylene (PE) and steel gas services and service pipework
IGEM/TD/13 Edition 2	Pressure regulating installations for natural gas, Liquefied Petroleum Gas (LPG) and LPG/air
IGEM/TD/101 Edition 3	Adoption of pipe systems by a Gas Transporter (GT) - management of Utility Infrastructure Provider (UIP) activities
IGEM/TD/102	Competence framework
IGEM/SR/18 Edition 3	Safe working practices to ensure the integrity of gas pipelines and associated installations
IGEM/SR/25 Edition 2	Hazardous area classification of natural gas installations
IGEM/SR/29 Edition 2	Dealing with gas escapes
IGEM/G/5 Edition 2	Gas in multi-occupancy buildings
IGEM/G/8	Handling, transport and storage of Polyethylene pipes and fittings
IGE/GL/1 Edition 2 +A: 2006	Planning of gas distribution systems of Maximum Operating Pressure (MOP) not exceeding 16 bar
IGEM/GL/4 Edition 3	Gas system assets – safety management system
IGEM/GL/5 Edition 3	Managing new works, modifications and repairs
IGEM/GL/6 Edition 3	Safe control of operations for gas networks

**This is NOT a full and exhaustive list of regulations covering gas installation**

# Last Mile takes care of your gas connections, as part of a multi-utility or standalone solution, all with one point of contact

## Last Mile connection guides

Our connection guides for site managers and builders are an excellent referral source and enable you to ensure that you have the correct ducting, trench depths and even meter box positionings on your development for a smoother connections and energising process.

[Download our Electric and Water connections guides](#)

## Free quotation

For a free, no obligation proposal and outline design, email [sales@lastmile.co.uk](mailto:sales@lastmile.co.uk) or call us on 03300 587400

