NORTHUMBRIAN WATER *living water*

LAYING YOUR NEW WATER SUPPLY PIPES

Fire supplies

WHY DO I NEED TO LAY MY SUPPLY PIPEWORK IN A CERTAIN WAY?

Under the Water Supply (Water Fittings) Regulations 1999, all supply pipework must be installed to a specific standard. These regulations exist to ensure the water supply remains safe.

This guide explains how to install your supply pipework to meet the regulations. If a contractor is carrying out the work for you, you should share this guide with them so they can meet the correct standards.

Depending on the diameter and total length of the installed pipework, as well as the presence of any associated fittings, a hydraulic pressure test and/or a microbiological disinfection may be required. Verified test results, issued by a UKAS-accredited laboratory, must be provided to us prior to the connection being undertaken. It is the customer's responsibility to arrange the tests where required.

For further information and guidance, please visit;

Water Regulations
Northumbrian Water
nwl.co.uk/business/water-regulations/guidance-notes-and-faqs/

WHO CAN LAY MY PIPEWORK?

You're responsible for appointing someone to lay your pipework. You have two options.

1. Use an approved contractor

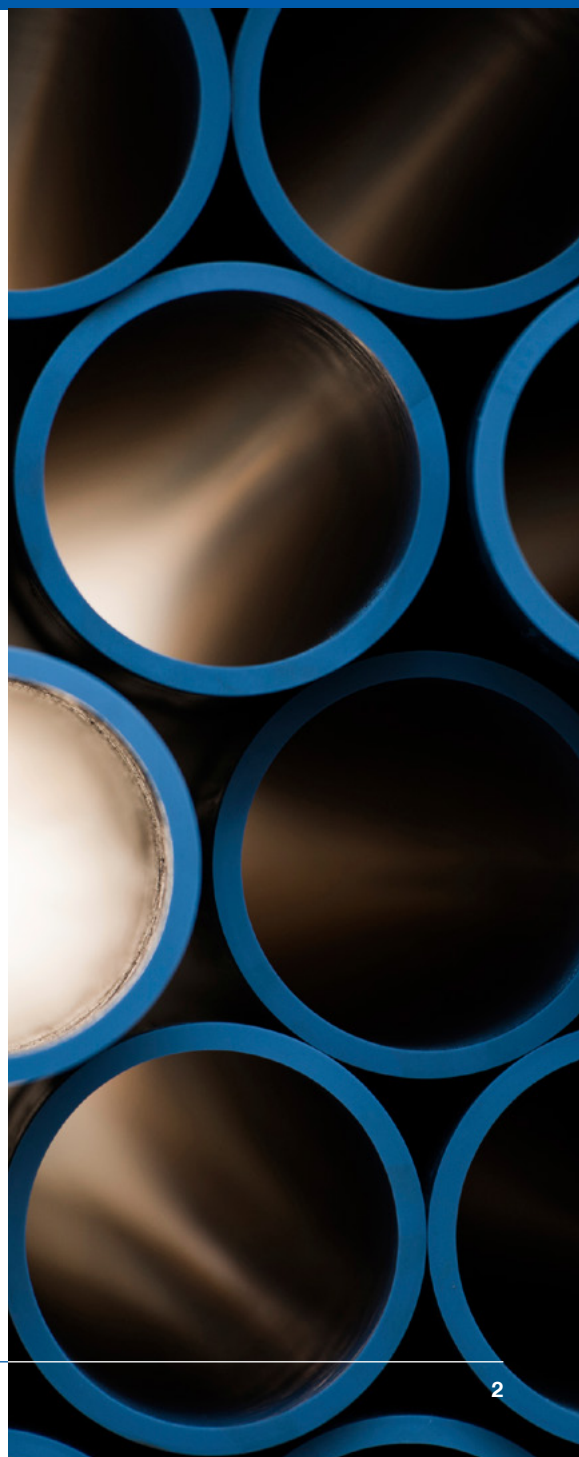
Approved contractors are trained in the Water Regulations and can certify that the work complies. If you use an approved contractor, we won't need to inspect the pipework but we do require a copy of their certificate.

Approved contractors can be found through WaterSafe.

2. Use your own contractor

If you choose a contractor who is not approved:

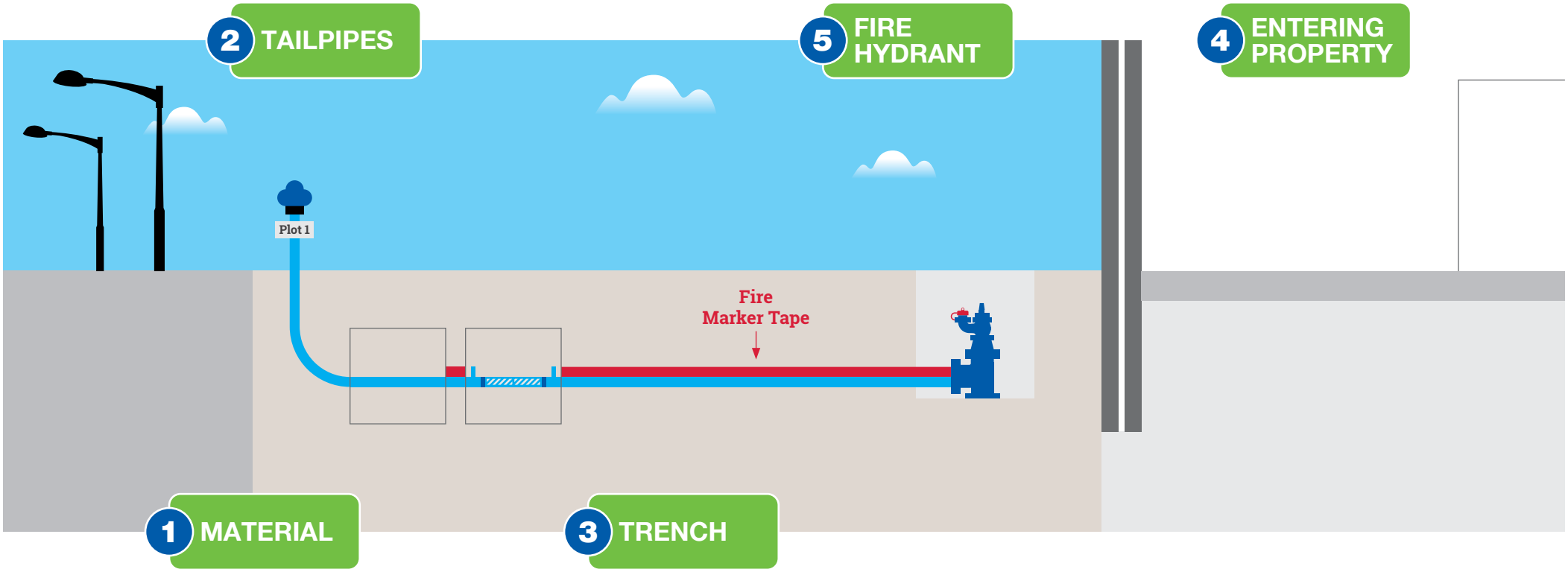
- We'll need to inspect the pipework from your project to the location detailed in your connection point plan
- If the work does not meet the required standards when we visit, additional inspections may be chargeable



LAYING YOUR PIPEWORK

FIRE HYDRANT SUPPLY

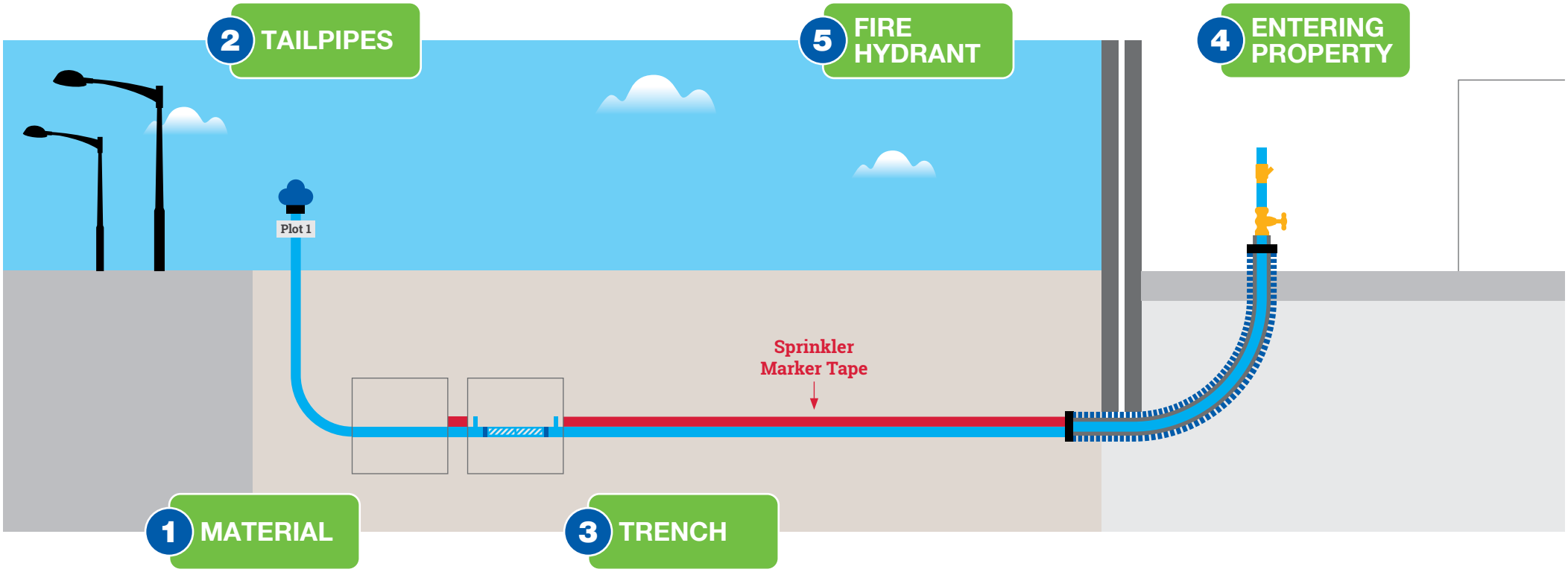
We've divided the process of laying your pipework into five sections: material, tailpipes, the trench, entering the property and fire hydrant.



LAYING YOUR PIPEWORK

FIRE SPRINKLER SUPPLY

We've divided the process of laying your pipework into five sections: material, tailpipes, the trench, entering the property and fire hydrant.



MATERIAL

ENSURE THE PIPEWORK IS THE CORRECT MATERIAL FOR YOUR PROJECT

- The required material type is detailed in your Water Connection Information Pack
- The pipework identified for the fluid within must comply with the relevant British Standards
- The most commonly used material is medium-density polyethylene (MDPE), which must comply with BS12201
- Barrier pipe must be used if ground contamination is identified, suspected or likely to be introduced by on site activities such as areas with chemical residues, or if oil or fuel are being stored. Barrier pipe must comply with BS8588
- All approved barrier pipe fittings must be installed as per the manufacturers guidance. If protective wrapping is applicable, evidence must be provided of this at the time of our inspection.

CHECK THAT THE PIPEWORK IS SUFFICIENTLY SIZED

- This will ensure there is adequate flow and pressure.

MDPE pipe

Barrier pipe

TAILPIPES

USE A COMPRESSION CAP OR MECHANICAL STOP END

- This securely seals the pipework and prevents any contamination from fluids and vermin.

LEAVE A MINIMUM OF 2M OF EXPOSED PIPE

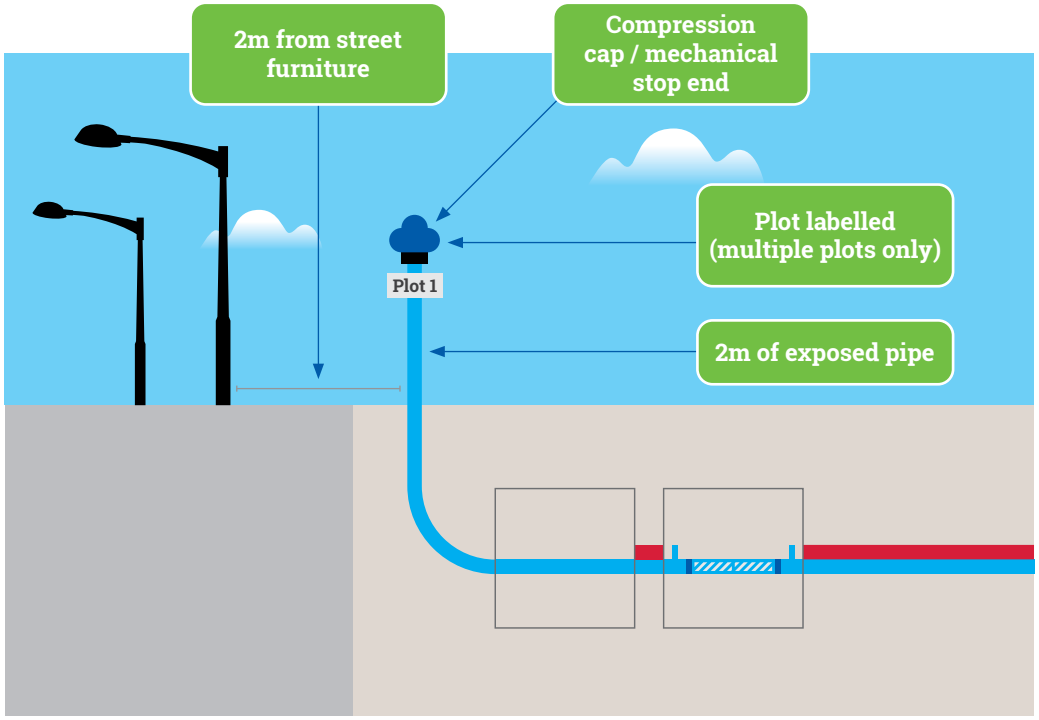
- This should come up from ground level at the location specified on your connection point plan.

ENSURE PIPEWORK IS AT LEAST 2M CLEAR OF STREET FURNITURE

- Maintain a 2m clearance from items such as lamp posts, telegraph poles and similar structures. If this isn't possible, please get in touch and we can advise.

LABEL YOUR PIPEWORK

- Clearly label the fire/sprinkler system supply and the domestic supply so they are easily identifiable.



Mechanical stop end

TRENCH

COMPLETE EXCAVATION WORK AND LAY YOUR PIPEWORK

- Ensure the trench is excavated entirely within your private boundary, up to the boundary line
- The pipework must be installed at a minimum depth of 750mm and a maximum depth of 1350mm below finished ground level
- Do not lay any other utilities within the same trench.

BED DOWN THE PIPEWORK AND LABEL WITH FIRE MARKER TAPE

- Use sand, soft earth, 10mm washed pea gravel or a similar suitable material to bed the pipework
- Do not use sharp rubble
- Compliant pipe identification tape must be applied at suitable distances along the entirety of the pipework for identification purposes. Red fire marker tape must then be laid over the fire supply pipework on top of the first layer of backfill
- For further information and guidance on pipe identification requirements, please refer to the pipe identification information guide found at waterregsuk.co.uk.

EXPOSE THE PIPEWORK

- We need to be able to see the pipework exposed along the full length of the trench. If you're unable to leave the trench open, please get in touch and we can advise.

DIG OUT THE CHAMBER

- The required length (L), width (W) and overall depth (TD) depend on the pipe diameter (shown in table 1).
- The excavated area at the boundary must be unobstructed. If you are unable to achieve this please contact us for guidance before proceeding
- Within the first excavated area nearest to the private boundary, install the pipe to this location which will house the water meter. The water meter will be installed by us on the agreed connection date. Once the pipe is installed to this location, securely seal the pipe end to prevent contamination
- In the second excavated area, located immediately after the first excavation. A minimum of a single check valve must be installed at the feeding tee on all fire water supplies to comply with legal back-flow protection requirements
- Where a greater risk is identified, enhanced back-flow protection is mandatory. In these circumstances, consultation with our Water Regulations team is required and the level of protection specified by them must be installed
- The back-flow protection must be fully installed prior to your trench inspection. Please construct the chamber which will house the back-flow protection after we have installed your water meter
- Make sure the chamber has 45° sloped sides, or shuttering, especially where trench depth exceeds 1.2m.

Pipe Diameter	Ground Out Area Required			Pipe Depth (PD) (to top of pipe)	Clearance Under Pipe
	(L)	(W)	(TD)		
63mm	4.0m	1.5m	1020mm	750mm	200mm
90mm	5.0m	1.5m	1050mm	750mm	200mm
125mm	5.0m	1.5m	1075mm	750mm	200mm
180mm	5.0m	2.0m	1130mm	750mm	200mm
250mm	6.0m	2.0m	1200mm	750mm	200mm
355mm	8.0m	2.5m	1310mm	750mm	200mm

Table 1

**Please note, consideration may be required for thrust blocks and restraint of pipework if required.

ENTERING THE PROPERTY

DUCT AND INSULATE THE PIPEWORK

Ducting

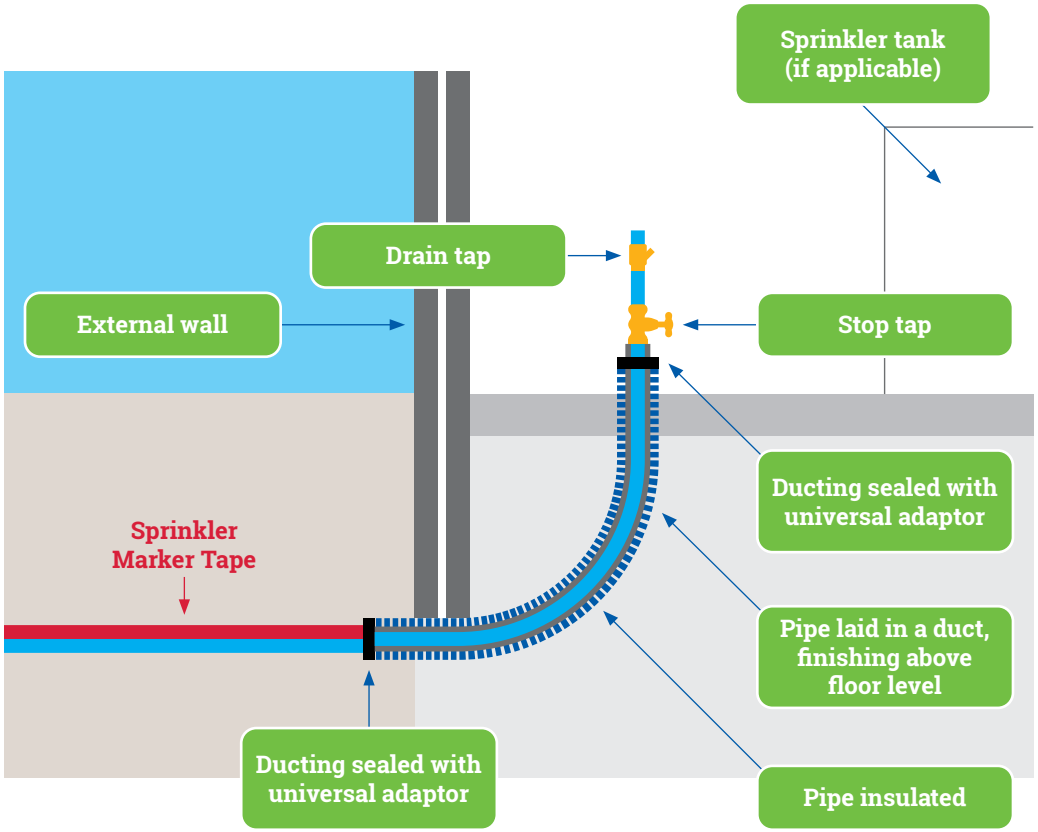
- Where the pipework enters the property or runs beneath it, it must be ducted using appropriately sized ducting. If flexible ribbed ducting is used, it must have a smooth internal surface to allow the pipe to be easily removed in the future if needed
- The ducting is typically plastic and must have a minimum diameter of 100mm to allow the pipe to be removed in the future if required.

Insulation

- In most instances, the pipework must be insulated. Please use an approved insulation material of an appropriate thickness, following the manufacturers guidance if -
  - The pipe enters the property less than 750mm from an exterior wall
  - The pipe is installed through a vented or unvented airspace, such as a suspended internal floor.
- Seal the ducting at both ends with a universal adapter. We do not accept expanding foam.

INSTALL AN APPROVED INTERNAL STOP TAP

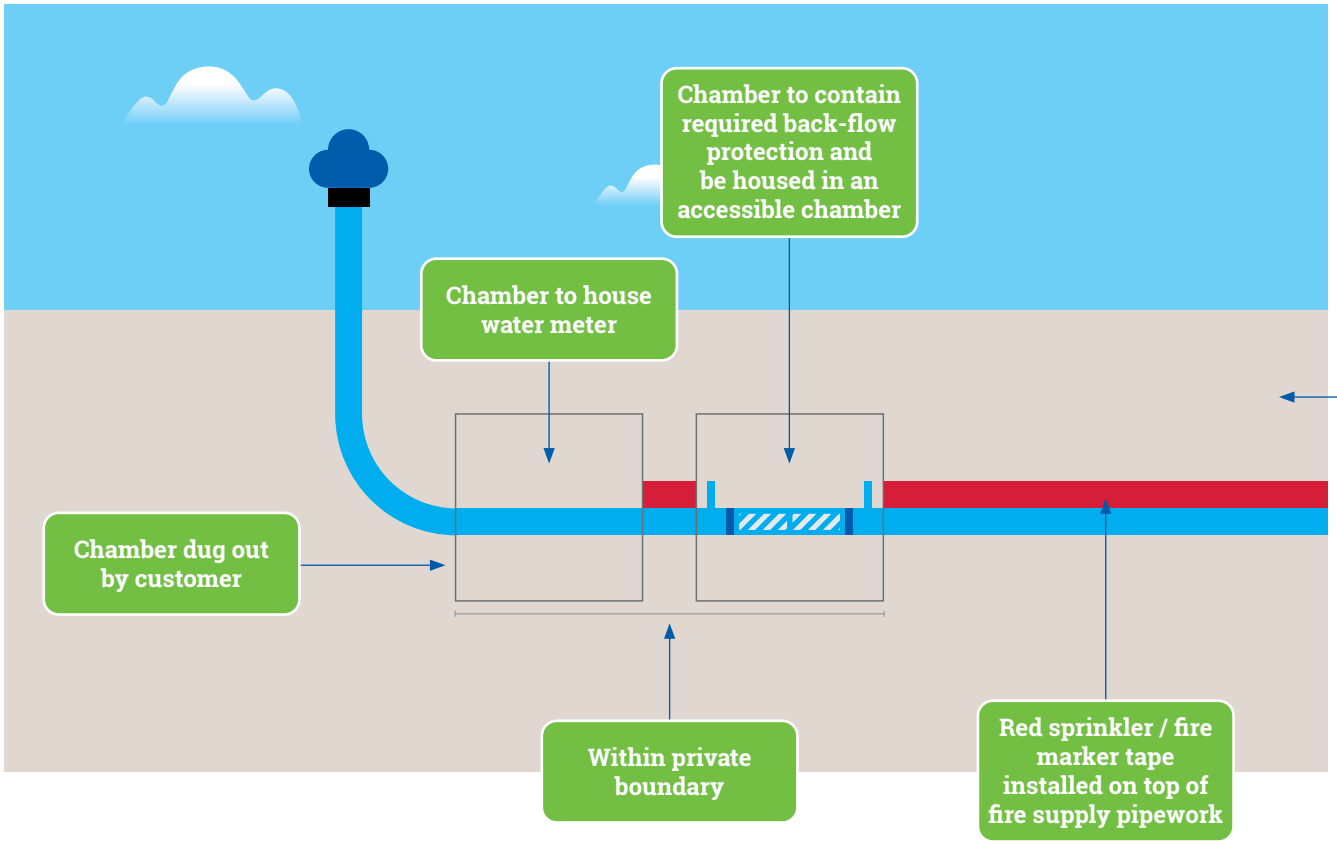
- These must be installed as close as possible to the point where the pipework enters the property, positioned above floor level and remain accessible
- The stop tap must comply with BS1010
- Where a continuous sweeping bend isn't possible, please contact us to discuss alternative options before commencing works.

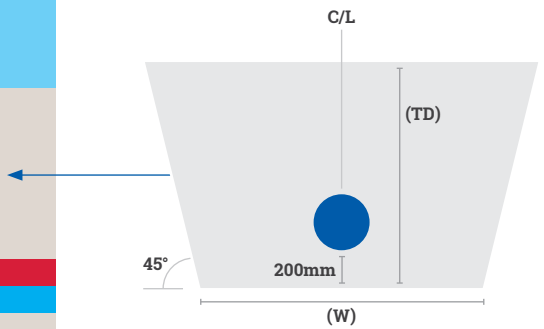


Stop tap

Universal adaptor

ENTERING THE PROPERTY

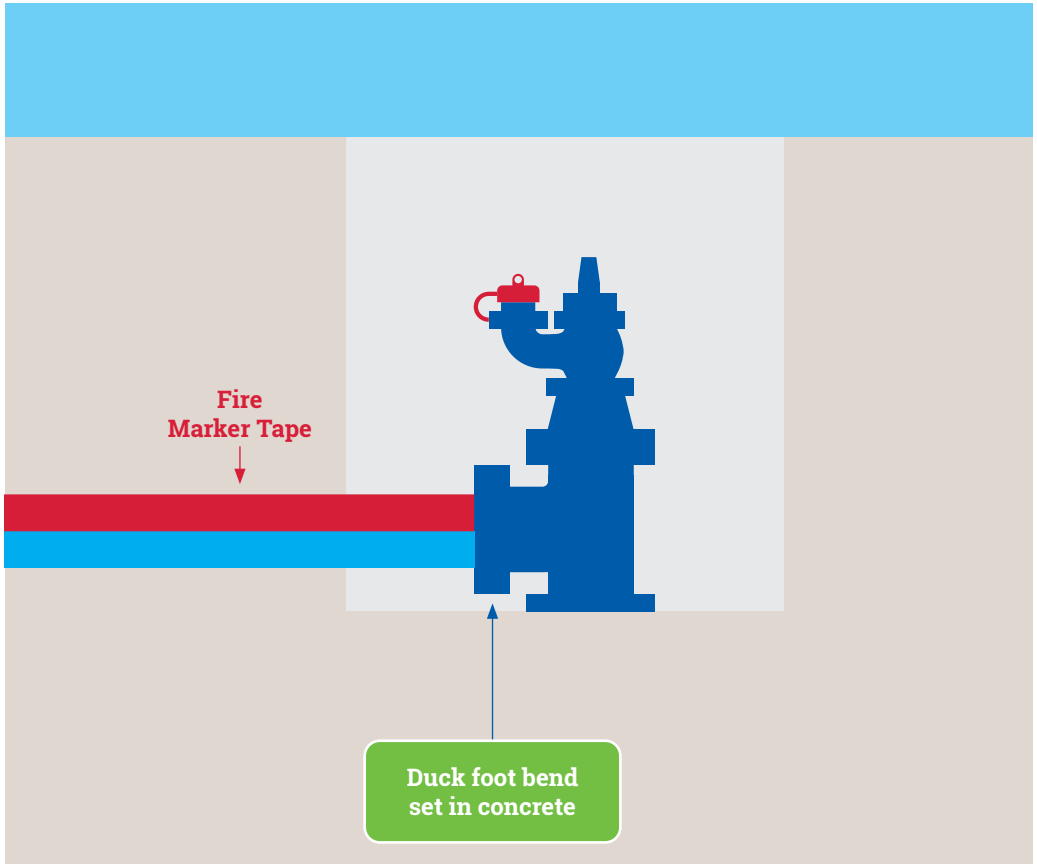




FIRE HYDRANT

POSITION OF HYDRANT

- Install an approved duck foot bend in a chamber and set in concrete to ensure it doesn't move
- The hydrant should sit between 100mm-300mm from the underneath of the lid to the top of the bowl.



Hydrant at correct distance from underneath lid to top of bowl

**Please note, consideration may be required for thrust blocks and restraint of pipework if required.

Scan the QR code
to find out more.

If you're ever unsure about any of the requirements in this document, please contact us and we'll be happy to discuss them with you.

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