

# Underground utilities

The layout of all new development sites will be required to accommodate its own services. It is essential that contact is made with all of the relevant statutory undertakers, to appropriately coordinate the installation/diversion of services. This should ensure that all apparatus can be installed cost effectively and accessed with minimum disruption to the highway network, e.g. by using shared service trenches and/or shared road closures. In turn this will help to comply as much as possible with the recommendations of the [National Joint Utilities Group \(NJUG\)](#).

## Routing of services

The statutory rights by which utility companies lay and maintain their apparatus are based on the assumption that they will be laid in adopted highways and other publicly owned land. However, we will not adopt land the sole purpose of which is to contain services.

We will not generally accept the laying of apparatus within the carriageway, except at junctions and in the case of public sewers, other than in shared surfaces.

Utilities in shared surfaces should be laid in a delineated service corridor along the edge of the street.

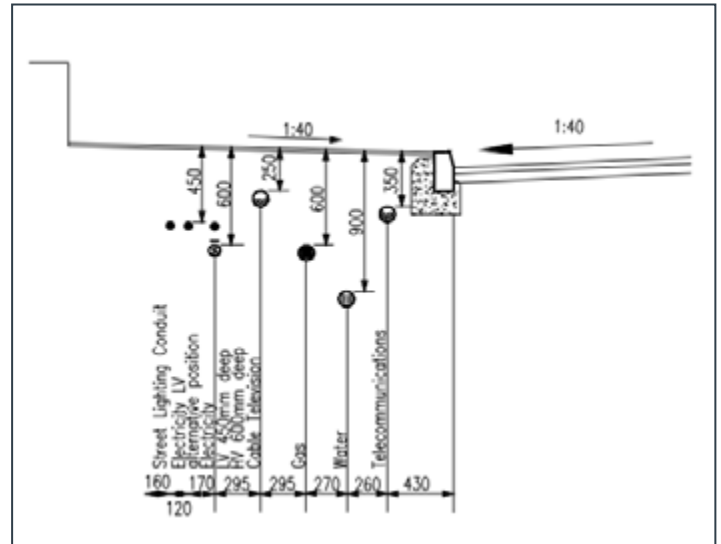


Fig 1: Recommended locations of services

## Service Corridors

The minimum width requirement for the provision of service corridors is two metres. Ideally apparatus should be positioned in accordance as indicated above. This would normally be within the footway/verge areas, but where this is not possible, such as within a shared space street, it is essential that the developer ensures that services do not conflict with one another.

Positioning of street furniture will also need to take account of the location of services.

Footways of the minimum width of 2m generally allow adequate space for utilities. Where a service corridor is proposed which is not under a footway, early discussions will be necessary with us at an early stage to justify any reduced provision, and confirm sufficient room has been allocated to accommodate all of the apparatus.

Service corridors should be clear of obstructions such as trees, hedges and walls. Any trees should be located so that their root systems, when mature, will not damage apparatus or be damaged during the laying and maintenance of apparatus. Root deflection barriers must be used on all tree pits or where damage to services may occur from matured landscaping. In all cases where trees may be affected, we insist that early discussions are held with us to determine and agree the need to protect root structures as well as to avoid damage to undertakers' apparatus.

Utility companies generally prefer their services to be within adopted highway, however if the service strip is soft landscaped it is unlikely to be adopted, unless it is grassed and easily maintainable. Soft landscaped areas need to be managed effectively, so should either be located within an area that is under management company responsibility or private ownership with an easement for utility companies. It is the responsibility of the developer to liaise with the relevant utility companies to seek agreement over easements.

If the service corridor is located within a highway verge adjacent to other privately maintained grassed areas, it should be delineated.

Where services are to be laid within the extent of the highway, they should be laid by the appropriate utility company.

We will not adopt utilities other than our own BNET communications network duct systems. BNET is a ducting and fibre communications network owned by us which supports facilities such as communications, traffic network communications and CCTV. More information on BNET locations can be found on Bristol's [Pinpoint](#) mapping system.

## Existing Underground Services

Works may be proposed that result in alterations being necessary to existing utilities. A [Section 50 Licence](#) (under the [New Roads and Street Works Act 1991 \[NRSWA\]](#)) allows the Developer to place, retain and remove apparatus within the existing highway and to carry out the work necessary to do so.

**This does not allow a developer to undertake other highway works outside this scope** – a separate licence or highway agreement will be required.

In this instance Developers will be operating as a statutory undertaker, and will therefore be governed by the obligations imposed under NRSWA and the [Traffic Management Act 2004](#).

We are responsible for issuing and monitoring Section 50 Licences. If the Developer requires one for any development then it is recommended that discussions commence at an early stage to ensure there is no delay to construction.

## Laying ducts

Utility companies generally prefer to lay all apparatus serving more than one customer in the public highway where they have statutory powers of access. Where services have to cross a carriageway, they should be in ducts and the duct positions agreed by us.

Trench sharing, trenchless technology or any other innovative ways of working should be encouraged to minimise the disruption to the road user.

## Inspection chambers

Inspection chamber covers should:

- minimise disruption to pedestrians and provide adequate access for installing and maintaining equipment and recovery operations;
- inset covers shall be used that align with the paving around them, subject to the relevant Statutory Undertakers' approval;
- avoid other utility providers equipment;
- allow for using mechanical equipment during construction and installation, maintenance and recovery operations at the site;
- take into account any known highway alterations;
- make sure the type and construction of underground chambers allows us to raise covers and frames during resurfacing work;
- allow space for associated jointing chambers;
- avoid potential archaeological features, including foundations to listed buildings.
- We will require the laying of additional ducting for BNET cabling or an alternative secondary cable provider (i.e. at least two telecoms providers) to create a competitive market for communications. Further guidance can be sought from our City Innovation Team.

## Fire Hydrants

Liaison will be necessary with the Fire and Rescue Services at any early stage to give opportunity to determine the risk and recommend the number and position of fire hydrants. Each hydrant will need to be strategically placed, to ensure the minimum provision is made, whilst delivering the optimum supply of firefighting water delivered from a mains system.

- Where necessary, a planning condition will be recommended requiring details of fire hydrants be submitted and agreed and for the hydrants to be provided prior to occupation of any buildings.

## District Heating

For schemes where district heating will be proposed additional space for ducting will need to be considered. Further guidance can be sought from [Energy Services Bristol](#).

## Electric vehicle charging

Active and passive provision for charging will be required throughout developments and appropriate ducting should be installed to support this provision where parking spaces are proposed.